

Environmental Performance Partnership Agreement: 2004

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Massachusetts Department of Environmental Protection

U.S. Environmental Protection Agency
New England



States and USEPA propose a new environmental partnership that will encourage continuous improvement and foster excellence in state and federal environmental programs. This new approach will reflect the advances made in environmental protection in the United States over the past two decades and recognize that existing policies and management approaches must be modified to ensure continued environmental progress. We must direct scarce public resources toward improving environmental results, allow states greater flexibility to achieve those results, and enhance our accountability to the public and taxpayers.

--Joint Commitment to Reform Oversight and Create a National
Environmental Performance Partnership System, May 17, 1995

partnership, *n.* *The state or condition of being a partner*

partner, *n.* *One who is associated with another in a shared activity*

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Section I

Introduction

The National Environmental Performance Partnership System (NEPPS) represents an evolving approach to the federal-state relationship in environmental protection. Its intent is to develop a system that is based upon environmental goals and measures of success and allows states maximum operating flexibility to accomplish their environmental priorities. This agreement consists of the MA DEP Performance Partnership Agreement/Program Plan for Fiscal Years 2004, and includes discussion of programmatic priorities that will guide both DEP and EPA's work in Massachusetts during the coming two years, a statement of the goals, objectives and environmental targets that will be the framework for DEP's program specific work plans, outlines of those workplans as envisioned for the coming two years, and an assessment of DEP's current status in achieving its environmental goals, objectives and targets.

The PPA/Program Plan builds on the effort of the previous MA DEP/PPA to allocate resources toward environmental priorities and to focus on producing actual environmental results in an increasingly challenging time of resource constraints. It includes specific environmental indicators and performance measures to measure progress toward our goals. More work is required and will be undertaken during the term of this PPA/Program Plan to improve and expand our use of environmental measures.

The goals, objectives and targets that form the framework for DEP's programmatic work plans have been crafted so that the Department's work can be seen in alignment with goals, objectives and targets developed by EPA Region I in the EPA New England Draft FY 2003-2008 Strategic Framework. To view the EPA Strategic Plan, go to the EPA website <http://www.epa.gov> and look under Key Issues for "Strategic Plan" or go directly to <http://www.epa.gov/ocfo/plan/plan.htm>.

Parties to the Agreement

This agreement formalizes the partnership between DEP and the EPA and will guide the working relationship and activities of both agencies during 2004 (October 1, 2003 to September 30, 2004).

Scope of the Agreement

This agreement provides an overview and summary of the combined work to be undertaken by the Department and EPA Region I. This PPA/Program Plan represents a significant change in scope from the Department's prior PPA's for two reasons:

- This is the first time the Department has developed a combined Performance Partnership Agreement/Program Plan. Formerly the PPA and the Program Plan have been two separate documents describing separate parts of the Department's workload, most federally funded work in the PPA and state-funded work in the Program Plan.
- This is the first Performance Partnership Agreement that has contained both the Department and EPA Region I's anticipated priorities and work commitments in Massachusetts for the upcoming two-year period. Previous PPA's have included the Department's work commitments only.

This PPA/Program Plan develops an overarching planning document for the Department's environmental goals, objectives and targets and describes the programmatic work that will achieve those goals.

EPA Program Grants that have been combined under the Department's Performance Partnership Grant and that are overseen by EPA through the Performance Partnership Agreement are:

- Clean Air Act, Section 105
- Clean Water Act, Section 106 (Water Pollution Control); Section 319 (Nonpoint Sources Management); Section 104(b)(3) (Water Quality and Wetlands)
- Resource Conservation and Recovery Act (RCRA), Section 3011
- Safe Drinking Water Act (SDWA), Section 1443 (a)(1)
- Safe Drinking Water Act, Underground Injection Control, Section 1443 (b), and
- Pollution Prevention Incentives for States (PPIS).

Public Participation in PPA/Program Plan Development

The Department has taken public comment at two points in developing the PPA/Program Plan. DEP reviewed the list of participants from DEPartners Day (June 2001) and updated it as appropriate. DEPartners Day participants were sent a mailing asking them to submit comment.

- The first comment period solicited comment on the PPA/Program Plan development process and the draft environmental goals, objectives and targets developed by the Department and EPA Region I.
- The first comment period ran from Friday, October 17, 2003 to Wednesday, November 5, 2003. Comments received during the first comment period were used by the Department to guide development of the complete PPA.
- The second comment period was to solicit comment on the draft final PPA/Program Plan. The second comment period ran for two weeks and notice of the beginning and end of the comment period was sent to all attendees of the June 2001 DEPartners Day and to everyone who submitted comment during the first comment period.

The draft PPA was also presented to the DEP Fees Advisory Committee. Other DEP Advisory Committees were notified that the draft PPA is on the DEP website for review and comment.

Self-Assessment

This 2004 Environmental Performance Partnership Agreement represents a major effort to make the PPA shorter, more concise and inclusive of both EPA Region I and Massachusetts Department of Environmental Protection work to protect and enhance our environment. On-going self-assessment has driven the choice of strategic priorities and programmatic targets, strategies and activities.

The Strategic Priorities described in Section II of the PPA represent the environmental issues that DEP has deemed to be both the most pressing environmental problems facing the Commonwealth and to be the issues which DEP is best equipped to address and realize significant environmental gains as a result of concentrated effort.

Section III of the PPA provides detailed information on baseline environmental conditions in Massachusetts and the programmatic objectives, targets, environmental indicators and program work that DEP has developed to address those baseline conditions. Section III also includes a crosswalk chart that juxtaposes the objectives and environmental targets that DEP and EPA Region I have developed to address Massachusetts' environmental problems. The crosswalk allows both the agencies and the public to assess how the work of the two agencies meshes together to provide environmental protection to the citizens of Massachusetts.

Assessment, Evaluation and Revision

This agreement spans one year. The Department will provide mid-year report and year-end report on January 1, 2005 to EPA. The mid-year report will summarize the status of federal grant expenditures at the mid-year on a grant basis only. The final report will summarize activities and progress made toward environmental goals and in meeting targets and key work plan commitments. Any amendments to this agreement, based on changed priorities or resources, will be included in the Final Progress Report for 2005.

Section II - Massachusetts DEP & USEPA Region I Strategic Priorities

This section of the Performance Partnership Agreement outlines strategic priorities for the upcoming two-year period. Massachusetts DEP strategic priorities are described in some detail, while the EPA Region I strategic priorities are shown in outline form. The details of EPA's work toward strategic priorities are included in Section III – Program Environmental Targets, Activities and Outputs.

The issues are highlighted as strategic priorities because of the potential for significant environmental gains as a result of concentrated effort (as in the Nutrients work on Cape Cod and the Assabet River), for environmental improvement for a particularly sensitive population (the Diesel initiative in urban areas), or for long-term improvements in our work toward environmental improvement (expansion of the ERP program).

This Section does not include ongoing programmatic work that both agencies will be undertaking during the PPA period. DEP and EPA's base program investments, environmental targets and activities and programmatic outputs are described in Section III of this PPA.

Goal 1: Clean Air

MA DEP 2004-2005 Clean Air Strategic Priorities

Non-Attainment of the Ozone Standard

Issue: While air quality has improved significantly over the past decade, Massachusetts is still in violation of the 1 hour ozone standard at two sites in eastern Massachusetts, and it is anticipated that EPA will designate Massachusetts as “non-attainment” for the 8-hour ozone standard in April 2004. Ozone causes breathing difficulties and reduces resistance to respiratory diseases in both healthy individuals and those with chronic respiratory problems.

Strategies: Ozone is created when two precursor air pollutants, NO_x (Nitrogen Oxides) and VOCs (Volatile Organic Compounds), react in the presence of heat and sunlight. DEP addresses ozone levels by controlling emissions of these two substances from “point sources” (factories and power plants), “area sources” (consumer products, home heating, architectural coatings, etc.) and “mobile sources” (cars, trucks, buses, trains, etc.) through:

- performance standards for fuels, consumer products, stationary sources, vehicles
- permits for stationary sources
- inspections, emissions testing, audits, and report review for stationary and mobile sources
- follow-up enforcement
- transportation planning to minimize vehicle miles traveled

It is important to note that over half of the ozone problem in Massachusetts is due to transport from other states. Therefore DEP also works at the national level to minimize emissions from out of state sources.

FFY 2004 – 2005 Outputs:

- Continue to follow and comment on EPA's proposed 8-hour ozone implementation rule and strategy development
- Submit 2002 emissions inventory for ozone precursors to EPA (June 2004)

- Respond to EPA's April 2004 non-attainment designations and classifications of 8-hour ozone non-attainment areas, as needed
- Work with the Ozone Transport Commission (OTC) states to develop and run an ozone model for the OTC domain to support the 8-hour ozone attainment demonstration SIPs that are due in 2007 (model runs will continue through FY 2005)
- Work with OTC to develop NOx and VOC control strategy for the OTC states (on-going throughout 2005)
- Develop Massachusetts regulations based on OTC model rules for portable fuel containers, consumer products, and architectural and industrial maintenance coatings (draft rules: 2004, final rule implementation: 2005)
- Continue to permit, inspect and take appropriate enforcement actions against stationary sources and stage II fuel stations, and implement transportation planning and I&M programs.
- Continue to work to inform the public of unhealthy air quality and educate the public on steps to take to reduce health risks during unhealthy episodes.
- Continue to provide ozone and PM 2.4 data and forecasts.

National Presence

Issue: As most of our ozone and its precursors come from sources outside of Massachusetts or outside of direct state control, Massachusetts can only achieve healthy air through actions on the part of the Federal government and other states. Only through such cooperation can we effectively address pollution being transported from upwind states and pollution from sources that are federally controlled/preempted from state action (e.g. off-road vehicles, diesel vehicles, diesel fuel, ships, aircraft, trains.)

Strategies: Massachusetts takes a national leadership role to ensure that the interests of our citizens are represented in federal action and that Massachusetts is not left to bear the burden for pollution control due to the inaction of upwind states.

FFY 2004 – 2005 Outputs

- Actively participate in the Ozone Transport Commission (OTC) to address regional transport issues
- Work with Northeast States for Coordinated Air Use Management (NESCAUM) on regional ozone control strategies and support of Federal rules, policies and strategies that will address concerns of the Northeast states
- Continue to implement the California Low Emission Vehicle program
- Continue to avail ourselves of the legal, political, regulatory and policy options available to us to influence the decisions and actions of EPA and other states that affect the transport of pollution into Massachusetts
- Continue in a leadership role in State and Territorial Air Pollution Program Administrators (STAPPA) (currently Massachusetts is the Mobile Source Chair and will be the Vice President as of Fall of 2004).

Inspection and Maintenance (I&M) Program

Issue: Approximately 59% of the VOCs and 34% of the NOx emitted in Massachusetts come from mobile sources. The Massachusetts Inspection and Maintenance (I&M) Program ensures that the tailpipe emission control equipment on gasoline-fueled automobiles, trucks and busses, and heavy duty diesel vehicles is working properly. Because these vehicles are such a significant source of ozone precursors, the I&M program is a key component of DEP's ozone control program. Recently DEP, its

emission testing contractor and others have uncovered problems with both the Massachusetts emissions test and the reliability and maintenance of equipment used to test auto emissions in Massachusetts.

In 1997 Massachusetts opted to develop a independent test that could be conveniently conducted at service stations throughout the state, rather than adopt the Federal emission testing standard (IM240 test) which had to be conducted at a few centralized testing locations. Based on the results of tests in other states that are similar to the Massachusetts test, the Massachusetts test was estimated to be 85% as effective as the Federal IM240 test for identifying vehicles that were emitting excess NOx and needed maintenance work. Therefore, the Massachusetts State Implementation Plan for air quality improvement was given 85% of the potential credit for reducing NOx through tailpipe emissions. More recent analysis estimates that the Massachusetts I&M test is only 75% as effective as the Federal IM240 test. DEP is considering a number of possible changes to the test to achieve additional NOx reductions to meet the 85% target and moving forward to correct the problems with equipment reliability and maintenance as quickly as possible and ensure that the I&M Program is improving air quality in Massachusetts as it can and should.

Strategy: The Massachusetts Inspection and Maintenance program is a decentralized testing program administered jointly by DEP and the Registry of Motor Vehicles. Approximately 1600 service stations offer the inspections using equipment owned and maintained by a state contractor. DEP sets the standards for the program and is responsible for ensuring that the proper equipment is installed, the equipment is operated and maintained properly, and the approximately 8000 inspectors and equipment repair technicians have the proper qualifications. DEP has contracted out much of the day-to-day operations of the program. The Registry is responsible for ensuring that the stations and inspectors do the inspections properly, and for ensuring that motorists have the inspections and make the necessary repairs on their vehicles.

FFY 2004 – 2005 Outputs:

- Contractor to complete abbreviated (4 key components) equipment audits of all stations by December 2003
- Implement the Onboard Diagnostics emissions test in January 2004
- Convene a blue ribbon panel to review future program directions by January 2004. Recommendations expected by December 2004
- Double staff doing audits of equipment, and provide elevated review of contractor performance
- Improve training of DEP contractors in equipment in equipment audit and maintenance procedures and audit intervention
- Improve training of inspectors doing emission tests
- Improve communication with the stations about the need for prompt equipment repair
- Improve communication with the public about the program including a quarterly report card on equipment reliability
- Work with RMV on improved motorist and station enforcement.

Diesel

Issue: Diesel engines produce tiny soot particles that are highly reactive and deposit deep in our lungs. EPA recently concluded that diesel exhaust is a chronic respiratory hazard and a probable human lung carcinogen. The EPA report indicated that chronic exposure to particulate matter from diesel engines can cause injury to the lungs leading to higher prevalence of coughs, chronic bronchitis, exacerbation of asthma, and reduced lung function. Diesel exhaust generally makes up 10 – 50% of ambient PM 2.5 (particulate matter 2.5 microns or less in diameter), although the percentage may be higher in some urban neighborhoods.

Strategy: DEP, EPA and local Boards of Health employ a mix of approaches to controlling diesel pollution including regulatory standards, control equipment testing, fuel and control equipment standards, public information, enforcement of idling regulations and incentives.

FFY2004 – 2005 Outputs:

- Promulgate and Implement new performance standards for small diesel engines at stationary sources (“distributed generation”)
- Continued implementation of heavy duty vehicle emissions I&M program
- Continued implementation of Best Management Practice (BMPs) and require retrofits for landfills, wastewater treatment plants funded by the state revolving loan fund, and construction equipment used on the Central Artery/Third Harbor Tunnel equipment
- Continued effort to prevent truck idling at truck stops and other locations
- Continued work with individual school bus companies, and school bus company trade associations to implement anti-idling programs
- Develop an action plan for further controlling diesel emissions. Plan should be complete during winter of 2004. Strategies under consideration include expanded anti-idling programs, expanded diesel powered vehicle tailpipe I&M program and program enforcement, promoting engine retrofits, promoting the use of ultra low sulfur fuel (ULSF) and tax credits for retrofits and early use of ULSF.
- Participate in the Steering Committee for the Boston Breathes Better Initiative, an effort to increase participation in voluntary transportation programs, such as Best Workplaces for Commuters, diesel retrofits, and the use of low sulfur diesel fuel.

US EPA Region I 2003-2008 Clean Air Strategic Priorities

Energy

EPA Region I seeks to implement the national Energy Strategy by encouraging an environmentally sound energy supply while reducing demand through conservation and energy efficiency. EPA Region I’s Energy Team focuses on promoting energy-efficiency and renewable power, supporting states efforts to reduce greenhouse gas emissions and streamlining permitting of energy-related facilities and infrastructure. Recently, the New England Governors and the Eastern Canadian Premiers both committed to reduce emissions of greenhouse gas emissions to 1990m levels by the year 2010. EPA has fully supported this region-wide effort. Other goals include:

- Focusing permitting efforts to promote adequate energy supplies;
- Promoting conservation and efficiency through collaborating with the Energy Star and Performance Track Programs;
- Confirming that all EPA Region I energy-related activities are consistent with EPA’s energy policies;
- Promoting EPA’s Best Workplaces for Commuters Campaign;
- Promoting and assisting development of renewable energy sources; and
- Increasing public awareness of their role in climate change.

Toxics Strategy

Lead: EPA Region I seeks to eliminate medically confirmed blood lead levels greater than 10µg/dL among children under age 6 in New England by 2010, using three broad strategic objectives:

- Building infrastructure;
- Increasing effectiveness of outreach and education;
- Increasing compliance and enforcement.

The majority of these efforts are conducted under EPA Region I's Urban Environment Program.

Mercury: Several efforts are ongoing, including:

- The EPA Regional Mercury Model provides an integrated approach to assessing the effects of mercury from the atmosphere and from point and non-point sources on watersheds and ultimately, fish populations;
- The Offices of Assistance and Pollution Prevention provides medical facilities with information on mercury and how to prevent pollution by minimizing mercury and develop a baseline mercury inventory of Federal Facilities in New England;
- The Federal Facility Program developed a mercury management questionnaire and mercury source inventory as useful tools to inform Federal Facilities about mercury and develop a baseline mercury inventory of Federal Facilities in New England.

Dioxin: Two projects are planned.

- Barrel Burning Project: Backyard burning of domestic waste in an important challenge in the overall efforts to control dioxin emissions in the Northeast. The Northeast state environmental agencies are interested in exploring effective ways to reduce this source of dioxin emissions in the region. NEWMOA will coordinate with its sister organization, Northeast States for Coordinated Air Use Management (NESCAUM), on a program to address this problem.
- Source Inventories

Bromated Flame Retardants: EPA Region I continues to participate in regional, national and international efforts to better understand this class of toxics, including:

- ecological and human health risks;
- exposure pathways;
- approaches to reduce/eliminate them from the manufacturing and waste streams; and
- education and outreach activities.

Goal 2: Clean and Safe Water

MA DEP I 2004-2005 Clean and Safe Water Strategic Priorities

Restoring Impaired Waters

Issue: In order to clean up impaired waters, and keep them clean thereafter, it is necessary to know what is causing the impairment and what action or combination of actions will likely solve the problem.

Federal law requires the states to use Total Maximum Daily Loading assessments (TMDLs) to achieve this purpose and requires that TMDLs be prepared for waters that do not meet their intended uses under the Clean Water Act. Data collected for waters in Massachusetts indicate that federal law would require Massachusetts to prepare about 1600 TMDLs within the next 10 years. CH2M Hill recently conducted a detailed evaluation of what it would cost to prepare the TMDLs using the approaches required by EPA. The results showed that \$138 million would be required over the next 18 years, with an average of 82 FTEs, and \$7.7 million per year would be needed to develop remedial plans for the waters now listed as impaired. DEP currently has 4.5 full-time, state funded staff dedicated to data collection and

the development of TMDLs within the Commonwealth. The gap is obviously huge, and during this time of constrained resources, DEP will not be able to dedicate such a level of resources to TMDLs.

Strategy: DEP must pursue a TMDL-development strategy that will target our resources for maximum environmental results. The money invested must help select the lowest cost approach to improved water quality and give highest priority to water bodies that are most impacted and most important to smart growth strategies and the overall environmental health of the Commonwealth. We propose to:

- Focus on nutrients and pathogens. Information from ongoing water quality monitoring and assessment in Massachusetts demonstrates that the largest causes of water quality impairment are now nutrients and pathogens.
- Focus our initial work on coastal and urban water bodies. Coastal waters are especially productive and especially sensitive to pollution impacts. Urban and developed areas, where we hope to concentrate growth to utilize existing infrastructure, are more attractive for economic development when their water is clean and healthy.
- Use innovative approaches to preparing remedial plans. DEP is working with EPA on new innovative approaches to TMDLs that would allow us to limit our effort to what will really make a difference, saving time and money and getting water quality improvement in a faster and more efficient way. DEP will invest staff time in developing innovative approaches to developing types of TMDL's (e.g., a generic Lake TMDL, TMDLs based on implementation of Stormwater Phase II controls). DEP also wants to work with EPA to develop "TMDL off-ramps" for situations or types of situations where the cause of water quality impairment and the best means to address the problem are clear without going through the full TMDL process (e.g. impaired water adjacent to a CSO outfall and impairments via deposition of atmospheric mercury).

FFY 04-05 Outputs:

- Pursue innovative approaches to TMDL-development and to addressing water quality impairments through the Assabet River and Massachusetts Estuaries projects described in detail below
- Continue to work with EPA Region 1, other New England States, and the New England Interstate Water Pollution Control Commission to identify waters where other activities or plans are in place and can serve as "TMDL Equivalent" plans. Once identified and agreed to, these waters can be moved from Category 5 of the State Integrated List of Waters to Category 4b. TMDLs would then not be needed and existing plans would address the water quality impairment.
- In FY 04 continue to develop and finalize nutrient TMDLs for 5 Chatham embayments, the Assabet River (13 TMDLs), the Kickemuit River and bacterial TMDLs for Muddy Creek, Frost Fish Creek. Also finalize TMDLs for the Shawsheen headwaters (habitat impairment) and Palmer River (13 bacterial TMDLs)
- Continue work on additional TMDLs where data collection and related activities have commenced including the Nashua River, Charles River, Pomponesett Bay, Waquoit Bay sub-systems, Great, Green, Bournes and Quaboag Ponds, Oyster Harbor and Nantucket Harbor
- Commence work on other TMDLs as resources allow and as negotiated with EPA during the 2004-2005 period

Assabet River Phosphorus Loading Project - Nutrients

Issue: Information from ongoing water quality monitoring and assessment in Massachusetts demonstrates that the largest causes of water quality impairment are now nutrients and pathogens. The Assabet River is listed on the State List of Impaired Waters (303d List) because it is nutrient enriched. Over the last several years a significant amount of data has been collected which document that the river is supersaturated with nutrients, phosphorus in particular. The excessive nutrients have resulted in large fluctuations in dissolved oxygen with low dissolved oxygen during low flow periods. The nutrients also feed excessive growth of algae and macrophytes, duckweed in particular, that prevent the river from meeting its designated uses such as fishing, boating, and swimming and cause severe odor problems when the vegetation dies in the fall months.

Data and detailed modeling indicate two primary types of sources for the nutrients that impair the Assabet River. The first, and most significant, source is the four major publicly owned treatment facilities (POTWs at Westborough, Marlborough West, Hudson, and Maynard) along the river. Data indicate that the POTWs contributed about 90% of the phosphorus load to the river in 1999 and 2000 during the summer months (growing season). The second type is nutrient loading is from sediments underlying five major impoundments. As loading from the treatment plants declines, the contribution of nutrients from the sediment will increase, offsetting some of the gains from treatment plant reductions.

Strategy: A TMDL is now being developed that will identify necessary reductions from the POTWs as well as from the sediment. A Consortium of Assabet Communities and the Organization for the Assabet River have participated in the TMDL development. The TMDL will be available for public review during the winter of 2004.

The Department and EPA propose an adaptive management strategy which would require the POTWs to significantly reduce phosphorus loads to the River and at the same time allow them to investigate sediment and/or dam removal options as an cost effective option in-lieu of more stringent phosphorus discharge limits. In the first phase of the approach EPA and DEP propose to issue revised NPDES permits in spring 2004 which will require treatment facility upgrades to achieve phosphorus limits of 0.1 mg/l and allow for sediment/dam removal evaluations to be conducted by March 2007. At that time EPA and DEP will discuss options with the communities. If the communities decide to pursue sediment or dam removal options, a detailed schedule for implementation will be negotiated. If the communities do not wish to pursue sediment remediation options, then DEP and EPA will issue new NPDES permits in 2009, incorporating lower phosphorus limits as necessary, to address water quality concerns by 2014.

FFY 2004-2005 Outputs:

- Development of draft and final TMDL for nutrients
- Hold public meetings
- Respond to comments and finalize TMDL for submittal to EPA for approval
- Develop Draft and Final NPDES permits with EPA
- Hold Public hearings if necessary in 2004 and finalize permits
- Work with the Army Corps of Engineers and Assabet River stakeholders to develop scope of work for sediment/dam removal feasibility study
- Finalize initial work with USGS on sediment quality data collection and interpretation
- Begin development of a monitoring plan to implement and assess progress as the phased approach is implemented.

Massachusetts Estuaries Project - Nutrients

Issue: Information from ongoing water quality monitoring and assessment in Massachusetts shows that the largest causes of water quality impairment are nutrients and pathogens. The estuaries of Southeastern Massachusetts are in rapid decline with the widespread loss of estuarine habitat and shellfish and finfish populations because of nutrient enrichment. Excess nitrogen, originating from disposal of human waste and excessive fertilization, has caused the overall decline. Awareness of the value of maintaining the health of estuarine systems began over a decade ago as it became clear that estuarine water quality is critical to southeastern Massachusetts. Estuarine health is directly linked to local economic sectors such as property values, tourism, and the shellfish and finfish industries of coastal communities.

Wastewater planning and implementation within the region will cost hundreds of millions dollars over the next 20 years. The lack of nitrogen reduction strategies and consistent, defensible design targets for development of municipal wastewater capital projects has resulted in significant delays and often in the need for additional implementation studies. The effect has been increasing, yet preventable, cost burdens on communities, and continuing environmental decline in the estuarine ecosystems.

Strategy: The Massachusetts Estuaries Project, through its contractor, the University of Massachusetts – Dartmouth School of Marine Science and Technology (SMAST), is providing the scientific and technical support to DEP to develop management plans for nitrogen sensitive embayments. The 6-year program (FY03-FY08) is performing the data collection and modeling required for plan development on roughly 15 estuaries per year. State, local and regional government are sharing the costs with the result being that all parties will receive affordable technical analyses, and the Commonwealth will have a coherent technical approach to resolving estuarine nutrient pollution.

A technical assessment of each estuary's potential for assimilating nutrients (primarily nitrogen from human wastewater) is the first step of the remediation planning process. Based on the assimilative capacities (nutrient threshold) of each estuary, a suite of infrastructure and management approaches will be recommended to municipalities for local implementation. The final goal is implementation of technically sound, cost-effective nitrogen and wastewater management techniques and restoration of the 89 embayment systems comprising the environmentally unique coastline of southeastern Massachusetts.

Outputs: Participating towns will receive an Embayment Specific Critical Nutrient Threshold Report and an accompanying Implementation Guidance Document. The communities with whom working partnership has been established include: Yarmouth Mashpee, Falmouth, Bourne, Fairhaven, Chatham, Dartmouth, New Bedford, Orleans, Nantucket, Edgartown, Wareham and Barnstable. Discussions are currently underway with Wellfleet, Mattapoisett, Plymouth, Kingston and Duxbury.

FFY2004-2005 Outputs:

- Conduct on-going data gathering and modeling activities during 2004-05, including:
 - Complete draft technical reports for 15 embayments in FFY04, including the five already completed Chatham reports
 - Complete final technical reports for 11 embayments in FFY04, including the five Chatham reports
 - Complete draft technical reports on 7 additional embayments in FFY05
 - Complete final technical reports on 9 additional embayments in FFY05
 - Prepare TMDL's for 7 embayments in FFY 2004, and 10 embayments in FFY05

- Initiate data gathering and modeling in 12 new embayments in FFY04, and in 11 embayments in FFY05
- Continue pre-technical assessment nutrient monitoring in an additional 64 embayments through FY04-05 in anticipation of doing modeling and preparing technical reports and TMDL's in those basins in future years.

Combined Sewer Wet Weather Overflows (CSO's)

Issue: Although the Clean Water Act (CWA) was passed over thirty years ago, we find ourselves with significant water quality problems remaining. During the first twenty years after the passage of the CWA, both the state and Federal government prioritized resources to successfully control “end of pipe pollution” at factories, construct municipal wastewater treatment facilities, and provide secondary treatment for wastewater. Information from ongoing water quality monitoring and assessment in Massachusetts demonstrates that the largest causes of water quality impairment are now nutrients and pathogens. More emphasis is now put on the water quality problems caused by stormwater and combined sanitary/storm sewers that overflow in wet weather bringing loads of nutrients and pathogens into rivers, streams and coastal beaches. Municipalities have made significant water quality improvements by constructing separate sanitary and storm sewers so that raw sewage does not escape from the combined systems during wet weather.

Separating sanitary/storm sewers is both expensive and disruptive because it requires tearing up the streets that overlay the sewers and laying a new network of pipe. It is also a problem that tends to fall on older, urban communities, many of whom are financially stressed. Nationally, EPA estimates that there are \$50 billion in CSO needs nationwide, and DEP estimates that approximately \$2 billion would be needed in Massachusetts to comply with regulations. More would be needed to eliminate CSO's completely.

Strategy: DEP has worked to address water quality problems caused by CSO's through sewer separation programs, and by implementing other CSO abatement technologies such as satellite CSO treatment and CSO storage, where elimination of CSO's through sewer separation is not feasible. The untreated volume of CSO overflows has fallen from an estimated 9,572 MG/year when the CSO abatement programs began to 5,430 MG/year in 2003, a decrease of over 43%. DEP projects that CSO volumes will be reduced to 2,234 MG/year by 2010, based on work proceeding under current enforcement orders, for an average annual reduction of over 76%. Reducing CSO's to this level will reduce, and in some cases eliminate, CSO impacts to: beaches in Dorchester Bay, Lynn and Gloucester; shell fish beds in urban areas of Boston Harbor, New Bedford, Fall River, Gloucester and Lynn; and will improve fresh water and marine aquatic habitats in Massachusetts by removing pathogens, solids, and excess nutrients that now cause significant impairment.

Separating sanitary/storm sewers and implementing other CSO abatement technologies are municipal responsibilities. Over the past decade DEP has provided cities and towns with over \$350 million through the State Revolving Fund (SRF) for wastewater to implement their CSO control plans.

FFY 2004-2005 Outputs:

- Review SRF applications for CSO funding
- Provide SRF funding to eligible projects, DEP estimates range up to \$100 million over the next two calendar years
- Technical assistance to communities
- Review draft and final CSO plans for compliance with the Clean Water Act and State Water Quality Standards

- Review Water Quality Standard classifications for CSO-impacted receiving waters during the CSO planning process
- Negotiate Orders with EPA and Court parties to establish construction schedules for CSO abatement work
- Work with EPA and watershed groups to review water quality information on CSO discharges and their impacts.

Restoration of Mount Hope Bay: Improve Fisheries Habitat by Reducing Thermal Load at Brayton Pt

Issue: In recent years there has been a dramatic loss in fish species and the overall environmental integrity of Mount Hope Bay. Scientific evidence points toward the thermal load from the Brayton Point Power Station as being a major component of the severe species loss, and points out the need for a significant reduction in thermal load and the need to reduce species lost by impingement and entrainment at the Brayton Point Station in order to stop the dramatic loss of fish species in Mount Hope Bay.

Strategy: The NPDES permit for the Brayton Point Station [MA0003654] was issued by USEPA and MADEP in October 2003 [2 public hearings on the draft permit were previously held in August 2002]. Some conditions of the final permit were recently appealed by the permittee. Specifically, the permit requires significant reduction in the thermal output from the station [over 95% reduction] and will require the facility to make major changes in how it operates its cooling water system for the power plant. It is likely that if the conditions of the permit are upheld, the facility will need to install cooling towers to meet the permit conditions. Recovery of the fisheries in the bay is the hoped for final outcome of changing the operation of the Brayton Point Station's cooling system.

FFY 2004-2005 Outputs:

- The appeal of the conditions of the NPDES permit will require USEPA and MADEP to spent considerable time preparing briefs for submittal to the USEPA Appeals Board. It is anticipated that the appeal process could take several months or longer in 2004-2005.

Environmental Goals Pilot Project for Selected Water Programs

Issue: The water programs at DEP are making a number of changes this year that will affect both the content and the appearance of the PPA/Program Plan.

Strategy: DEP's water program work plans will be based on key indicators of environmental and human health. The data that has been collected for these indicators will be presented in summary format, along with information on current conditions that have been measured. The work plans will examine and explain the data behind the measures and will set forth what how DEP seeks to change the environmental conditions that are measured to better reflect key indicators of environmental and human health, and how we propose to make those changes.

The purpose of this shift is to: a) help DEP move toward environmental and other outcome measures that are different from the process measures that are traditionally used, b) assure that the focus is on the most important work; because what is measured receives more attention, DEP must be sure that we measure conditions where we want to achieve results, and c) encourage creative thinking about the best way to achieve results; when results are what matters, rather than how often or how fast the process is used, better and more cost effective paths to the end point can be devised.

The information on indicators and the work plans will be posted on the web. The web based information and work plans, including links to databases and other sources of information, will replace the hard copy PPA and work plans that have traditionally been used. The purpose of putting the information on the web is to: a) be accountable for choices made and to let the public see not only what work the Agency is undertaking, but also the information that informed those decisions, b) make the data accessible to the public and all interested parties so that the Agency's work is more transparent, and c) provide DEP with a better framework for achieving the results that are the most important for protecting the environment and human health.

FFY 2004-2005 Outputs:

- DEP expects to have that data live on the web by early summer 2004. Because DEP anticipates making the information available on the web, much less detail has been included in the written PPA.

US EPA Region I 2003-2008 Clean and Safe Water Strategic Priorities

Protecting Our Infrastructure

EPA Region I is working to identify and help protect and reduce the vulnerability of critical environmental infrastructure. In particular, our drinking water program has worked with state and interstate organizations and provided technical support and other resources to water utilities and technical assistance providers to assist them in understanding the reducing the vulnerability of public water supply systems. More recently, we have expanded our work to include wastewater treatment facilities. The protection of this critical infrastructure has become a top priority of the Water Program both nationally and regionally.

EPA is working on the following efforts:

- Better clarifying roles and responsibilities for regional response decision-making and internal communications during significant emergency incidents;
- Working closely with federal, state, and tribal partners to review and revise interagency emergency plans and structures;
- Conducting outreach to partners to clearly define EPA's authorities, responsibilities and capabilities for responding to significant incidents;
- Improving our ability to assist local and state response personnel during significant emergency incidents;
- Working aggressively with State Emergency Response Commissions (SERCs), Local Emergency Planning Committees (LEPCs), industry and community groups to ensure that they have developed effective preparedness strategies;
- Providing the means to disseminate data and environmental related information to the public in as short a time as possible from the point at which it is generated; and
- Assessing our analytical capability in light of major terrorist attacks and investigating and documenting the availability of additional analytical capabilities (state and private labs).

Water Quality Monitoring Strategy

It is an Agency priority that states develop strategies for achieving comprehensive monitoring and assessments of waters. States should also define the infrastructure and organizational elements that are needed to support consistent and well-documented approaches toward these goals. Within its strategy

document, the state should identify current strengths and weaknesses, set goals, and provide a strategy and schedule toward achieving those goals. EPA recommends that the implementation schedule for elements be no more than 10 years, and that annual or biennial milestones be identified as markers for progress toward strategy goals. All elements will require new or redistributed funding. EPA Region I is working with states to have strategies final by September 30, 2004, as we anticipate that receiving 106 grant funding may be contingent (at least partially) upon states having acceptable comprehensive monitoring and assessment strategies in place. EPA will use strategies to identify state monitoring program needs on an individual and region-wide basis, and seek support for program development, and implementation of strategies.

Beaches

The overall goal of EPA's Beach Initiative is to protect public health and water quality at beaches in New England. To meet this goal, the number of beach closures must be reduced, based on a monitoring, assessment and public notification program consistent with EPA's tiered monitoring guidance. EPA will work closely with state environmental and public health agencies to develop and implement the new beach initiative. EPA will focus its efforts on providing technical assistance to state and local environmental and public health agencies for assessment and monitoring as needed and as funds allow, and will back up its assistance efforts with regulatory and enforcement tools where appropriate. Key strategies are:

- monitoring public health impacts;
- reducing beach closure days;
- target point sources and non-point sources to reduce beach closures.

Improved Information and Water Infrastructure Cost

In 1995, EPA Region I, in cooperation with the NEIWPCC, evaluated the cost to communities, business and industry, and individuals of compliance with federal requirements for wastewater treatment, drinking water and solid waste management. EPA Region I plans to update this cost data by:

- updating survey of rates by community;
- reassessing of rate payer burdens and impacts.

Goal 3: Preserve and Restore the Land

MA DEP 2004-2005 Land Restoration and Preservation Strategic Priorities

Massachusetts Military Reservation: Perchlorate in Groundwater

Issue: Perchlorate is a chemical that is widely used as a component of propellants for rockets, missiles, and fireworks. It is very soluble in water and is persistent in ground and surface water for decades. Perchlorate is an endocrine disruptor. It acts on the thyroid gland to decrease essential thyroid hormone levels that are responsible for normal growth and development and to maintain metabolism. Perchlorate is present in the groundwater plume at Massachusetts Military Reservation (MMR), has impacted public and private drinking water wells in Bourne, and has the potential to impact other private and public wells in adjacent areas. Other contaminated sites may include fireworks manufacturers, former defense sites, etc.

At this time no state or federal standards exist for perchlorate. EPA's provisional reference dose and water concentrations do not take recent studies into account and may underestimate the potential health effects of drinking perchlorate-contaminated water on sensitive subpopulations. While EPA is working to establish federal standards for perchlorate, promulgation appears to be several years away and its latest scientific assessment is under review by the National Academy of Science. Massachusetts is developing protective standards on an accelerated schedule.

Strategies: The Massachusetts Contingency Plan (MCP) regulation revisions package will include a recommended MA RfD and soil and groundwater cleanup standards for perchlorate. DEP will consider public comments received at public hearings before promulgating standards under the MCP. The regulatory standards will be used to define site cleanup levels.

DEP is also initiating the process to establish a Maximum Contaminant Level (MCL) for perchlorate in drinking water. DEP is following the federal process for setting drinking water standards, a process that includes information collection on perchlorate occurrence data in Massachusetts water supplies, using the MA RfD to set a Maximum Contaminant Level Goal (MCLG), and evaluating monitoring and treatment costs for affected public water supplies in setting the MCL.

FFY 2004-2005 Outputs:

- Issue MCP regulation revisions package and promulgate regulations in 2004
- Establish MCL for drinking water
- Review and update Massachusetts standards as needed when EPA standards are established 2006-08.

Brownfields Redevelopment

Issue: With the privatization of the 21E Waste Site Cleanup Program in 1993, the number of site cleanups completed annually in Massachusetts increased dramatically. However, liability and financial barriers continued to discourage the redevelopment of brownfields sites. In 1998, the Governor and legislature enacted the Brownfields Act, creating financial and liability relief incentives to stimulate cleanup and redevelopment of contaminated sites. Similar incentives exist under federal law.

Strategy: DEP plays a proactive role in facilitating brownfields cleanup and redevelopment throughout the Commonwealth. Working with other state and Federal agencies, DEP provides assistance in identifying brownfields sites and moving them through the system to a regulatory endpoint. DEP's primary role in this partnership is to coordinate, facilitate, provide technical assistance and on-site coordination, and act as the regulatory backstop to ensure appropriate cleanup.

FFY2004-2005 Outputs:

- Promote and assist in the use of the Special Project Designation (SPD), a tool that provides increased flexibility on cleanup deadlines for certain types of projects
- Provide technical outreach to project proponents on regulatory issues, and promote the use of financial and liability incentives
- Conduct four EPA-funded brownfields site assessments using state contractors
- Work with state partners toward developing an inventory of brownfields sites
- Provide assistance to communities receiving funding through the EPA Cleanup Grant Program
- Continue to provide assistance to communities that have received funding through the Brownfields Cleanup Revolving Loan Fund Program.
- Participate on the review panel for the Brownfields Redevelopment Access to Capital Program
- Target proactive outreach to 15 municipalities

- Assist the AGO in reviewing 15 Covenant Not to Sue applications
- Promote the redevelopment of priority lien sites
- Conduct pre-permit meetings in regions for brownfields project proponents as needed
- Organize and speak at public outreach forums
- Implement up to 10 brownfields site assessments

Beyond ERP

Issue: In the face of increasing workloads and declining resources, as well as in the interests of maximizing program effectiveness, DEP has realized that it needs to systematically assess how it handles the approximately 40,000 sources of air pollution, industrial wastewater, and hazardous and solid waste, as well as the numerous consumer products, vehicles, and activities (such as home heating) that generate pollution. It is critically important that DEP's energies be focused on the most significant environmental priorities and risks, and that DEP's programs have the desired environmental outcomes.

Strategy: DEP is building on the successes of the ERP program and the lessons learned during its implementation to address this issue. Under the ERP program, DEP was able to effectively bring thousands of small sources: dry cleaners, printers, photo processors, gasoline stations with vapor recovery systems (Stage II) into the regulatory system and substantially improve their environmental performance with a limited level of effort. This was accomplished through a new approach to facility oversight: easy to read workbooks and annual compliance certifications were substituted for permits and frequent, extensive compliance inspections. Program results were verified by the use of an industry specific scoring system to measure environmental performance across a whole sector coupled with random inspections of a statistically valid sample of the sources in the sector.

DEP has decided to apply ERP techniques, (i.e.: establishing performance targets for sectors; evaluating performance against those targets; exploring alternative, streamlined approaches to oversight such as workbooks and certification if performance is adequate and additional measures if performance is not up to the target) to the entire BWP regulated universe. This approach, "Beyond ERP", is based on five guiding principles:

- The most significant environmental priorities and risks will be identified and addressed
- Pollution sources and activities that contribute most to those risks will be identified, brought into compliance and kept there
- Pollution sources and activities that contribute less to those risks will be identified so that an appropriate level of oversight can be determined
- Compliance will be promoted throughout the regulated community by maintaining an agency presence
- Stakeholders will be involved in this process.

FFY 2004 – 2005 Outputs:

- Assessment and program oversight streamlining on six sectors: solid waste transfer station, biotech facilities, small engines and turbines (distributed generators), mercury discharges from dental offices, stage II gasoline facilities, and photo processors. These projects are being done as part of a "design/build strategy" to help inform the overall design of the Beyond ERP initiative. (Project work complete and implementation of results begins July 2004)
- Identification of "most risky" and "all other" groups by end of 2004

- Development of a schedule for assessing the different sectors or groups of BWP sources by end of 2004, with implementation thereafter
- Development of the overall program structure by end of 2004 with implementation beginning thereafter.

RCRA Reauthorization Checklists

Issue: EPA has delegated the RCRA (Resource Conservation and Recovery Act (42 USC 6901 et seq.)) hazardous waste management program to the state of Massachusetts. As a condition of this delegation the DEP program must be functionally equivalent to the Federal program. Over time DEP has adjusted its program to respond to changing conditions and EPA must approve (reauthorize) these changes. Currently there are 267 pages of regulations awaiting reauthorization. The current process entails a line by line review of state vs. Federal regulations. This approach results in DEP and EPA spending inordinate amounts of resources even though it is generally agreed that Massachusetts operates a capable hazardous waste program, and in many ways the Massachusetts program exceeds federal standards in both how it regulates and the amount of waste it regulates.

Strategy: EPA and DEP have agreed to work together to streamline the RCRA Authorization process. In addition, under the aegis of ECOS, EPA, ASWAMO, DEP, Texas, Virginia, and Colorado have established a “Functional Equivalency Work Group” that will develop recommendations for improving and streamlining the reauthorization process.

FFY 2004 – 2005 Outputs:

- DEP will respond to public hearing comments on Checklists C1 – C3 and will promulgate the regulations by Spring of 2004
- EPA has a Federal Register Notice proposing to authorize C1 – C3, offer grant flexibility for the RCRA Laboratories XL Project, and extend Project XL for 3 years. Assuming that these actions are finalized DEP will implement the program accordingly
- DEP will devote the resources available for “reauthorization” to active participation in the “Functional Equivalency Work Group”, deferring effort on the remaining checklists until the Work Group has completed its task. The group’s charter has been established and the recommendations are to be completed by August 2004.
- DEP will continue negotiations with EPA on additional RCRA authorization packages (including Corrective Action) or alternative processes. By September 30, 2004, the two Agencies will agree on a) what actions will be pursued; b) necessary decisions and implementation steps; and c) a schedule for FY 05 and beyond for development and implementation of the agreed upon course of action. This will include decisions on Corrective Action as well as Checklists C4-C9 to be submitted by August 1, to update the Base Program beyond the 1990 Federal Regulations.

Goal 4: Healthy Communities and Ecosystems

Massachusetts DEP Strategic Priorities that will affect communities and ecosystems are included in this plan under the three previous goals. Non-attainment of the ozone standard, the diesel retrofit initiative, and brownfields redevelopment will all have direct impacts on the quality of life for urban communities in Massachusetts. Restoring the integrity of Mount Hope Bay through work with the Brayton Point facility, the nutrients work being done through the Estuaries and Assabet projects, and work to mitigate perchlorate in groundwater around the Mass Military Reservation will all have long-lasting benefits for local ecosystems.

In addition, during the 2003-2005 planning period, the Massachusetts DEP will be using strategic Compliance and Enforcement initiatives as tools to further our goal of healthy communities and ecosystems throughout Massachusetts. Specifically, the Wetlands Enforcement Initiative, Beyond ERP and the Urban Area Compliance Assurance initiatives described in the Compliance and Enforcement Strategy should be viewed as Strategic Priorities for healthy communities and ecosystems.

US EPA Region I 2003-2008 Healthy Communities and Ecosystems Strategic Priorities

Place Based Focus Strategy

The Place Based Focus Strategy implements environmental improvement programs that have been structured to address the overall needs of communities that have historically been overlooked by more traditional environmental protection efforts. Examples include:

- community based toxic reductions such as lead reduction in Boston;
- environmental justice
 - Urban Environmental Program as an example.

The Regional Urban Environmental Program takes an active role in listening to community needs and concerns, identifying projects, and providing resources to implement projects that make measurable improvements in public health and the quality of the urban environment. The UEP addresses a multitude of environmental and public health hazards, ranging from lead paint poisoning to rats on vacant lots to asthma due to poor indoor air quality. Cumulatively, the effects of these hazards on urban residents and high-risk populations, such as children and the elderly, are compounded by issues including environmental justice, economic development and social ills. By focusing attention upon key urban areas and facilitating the formation of sustainable partnerships, the UEP creates lasting approaches to addressing these complicated issues. Complementing the UEP, EPA Region I developed an Environmental Justice Action Plan and mapping tool to encourage multi-level efforts to further ensure that no group of people bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal and commercial operations.

Another facet of the Place Based Strategy focuses on ecosystems with key watersheds as an example. Following on the heels of EPA Region I's successful lower Charles River basin watershed model approach, we continue to identify watersheds in need of priority attention and strategically apply EPA's enforcement authorities, education and compliance efforts, and technical and financial support to achieve environmental goals that we define jointly with our states and local partners. We continue to use a watershed approach which integrates our monitoring, water quality standards, permitting, wetland restoration, and TMDL programs to effectively and efficiently tackle water pollution issues ranging from wet weather problems to nonpoint source pollution.

Compliance and Environmental Stewardship

MA DEP 2004-2004 Compliance and Enforcement Strategic Priorities

The Massachusetts DEP maintains a firm commitment to:

- directing compliance and enforcement efforts toward high-risk areas, and
- integrating the Department's C/E efforts into all programmatic work.

Compliance and Environmental Stewardship is not developed as a discreet Goal in the 2004-05 PPA, rather it is developed separately as an independent Compliance and Enforcement Strategy and incorporated into programmatic objectives and work plan as a tool to achieve environmental goals. As in the EPA New England FY 2003-2008 Strategic Framework, compliance and enforcement strategies are a means to give a higher profile and achieve greater results for selected objectives within other Goals.

The Massachusetts DEP's strategic priorities for compliance and enforcement during the 2004-2005 planning period are:

Wetlands Enforcement Initiative

A computer assisted analysis of aerial photos of wetland resources taken over the last decade depicts extensive alternations of wetlands that have occurred despite a substantial proportion of staff resources concentrated on the oversight and review of local conservation commissions' orders. While such permit-oriented compliance activities have an important role in protecting wetlands, that protection is limited to property owners that obtain valid orders and comply with them. An investigation DEP conducted on a sample of the sites identified through the computerized comparison of aerial photographs found that over 50% of the identified wetlands loss was likely unpermitted. The permitting work done by DEP does not addresses the more pervasive illegal alternations conducted outside the system or the beyond approved limits established by the wetlands regulations or orders of conditions.

Using advanced technology combined with aerial and field surveillance, DEP intends to intensively redirect resources into a compliance strategy and enforcement response that:

- prevents future illegal fills by sending a strong deterrence message,
- compels the remediation of past illegal alterations,
- collects the economic benefit obtained by illegal filling,
- communicates that non-compliance will be uncovered, and
- clarifies which elements of the permitting process need to strengthened to prevent further uncontrolled wetland loss.

Urban Area Compliance Assurance

The environmental quality of our urban areas, particularly those that are designated as environmental justice neighborhoods, is a critical concern to DEP for several important reasons. Residents of these communities are often subjected to multiple sources of pollution that have been demonstrated, as in the case of asthma, to contribute to elevated incidence or risk of adverse health effects. Older, deteriorated housing and abandoned industrial operations are also more likely to expose neighborhood residents to asbestos and other contaminants. Urban properties that are contaminated with oil and hazardous waste often languish because of the recalcitrance of property owners or responsible parties who cannot or will not assess and clean-up the contamination. Such properties present not only health and environmental concerns, but also impede the growth of commercial and residential development.

Mitigation of urban pollution and acceleration of site clean-ups directly complements the goal of sustainable development by removing environmental quality stressors and increasing the stock of developable urban land.

With the goal of reducing air contamination levels, increasing the rate and quality of site clean-ups and supporting the development of sustainable businesses and affordable housing, the Department will use facility and site information data and GIS mapping systems in concert with inter-agency brownfield

development initiatives to implement an urban enforcement strategy that will target Tier 1B/D default sites, mobile and stationary air pollution sources, and asbestos removal and renovation projects.

Urban Non-Responder Enforcement Project

This project will provide publicly funded waste site clean-up in support of enforcement effort in urban areas. Efforts will be targeted to sites that:

- Are in noncompliance because they either failed to complete preliminary assessment and tier classification or failed to perform required actions
- Are located in an urban setting
- The potentially responsible parties (PRP) own the property (location of the site) and appear to have the financial resources to perform response actions
- The property value appears to exceed environmental liability
- Are near schools, water supply Zone II's or other sensitive receptors
- Pose a significant threat.

The enforcement actions will include several elements:

1. Issue a Notice of Response Action (NORA) establishing a date for response or penalties
2. If the PRP does not respond by compliance date of NORA or if PRP decides not to perform response actions, issue Notice of Intent to Mobilize (NOIM), establishing that DEP's contractor will be taking over, when the contractor will begin work and reiterating the PRP's liability, treble damages and the lien that will be in place on the property
3. If PRP decides to continue response actions after DEP has issued NORA/NOIM, then DEP will pursue an ACOP that includes a strict schedule, settles any outstanding costs to DEP and establishes that the PRP has the financial resources to complete the job
4. DEP Initiates Cost recovery/super lien provision.

Asbestos Enforcement Initiative

The Department's goal is to enhance and support enforcement of asbestos regulations and protection of public health through increased targeted inspections and publicizing results of inspection efforts and recent enforcement cases. Targeted inspections, resolution of selected ongoing enforcement cases, and compilation of recent enforcement actions have taken place between mid-January and the end of February 2004.

To facilitate our ability to target the most likely and significant violations and to develop the strongest deterrence message possible, the initiative will include several elements:

- Bundling of Recent Asbestos Enforcement Cases: Each region will review enforcement cases of the past six months and prepare summaries of significant cases that support the initiative.
- Development and Resolution of Ongoing Enforcement Cases: Each region will prepare summaries of ongoing asbestos enforcement cases, identifying cases of which enforcement actions can be completed by the spring of 2004. OEC will contact the Attorney General's Office to discuss the status of referred asbestos cases and determine what cases can be completed or referred back to DEP for potential inclusion in public information announcements.

- Targeted Inspections: DEP will increase asbestos inspections, targeting inspections based on the potential risk of exposure.
- Off-Hour Inspections: To increase our ability to discover violations, enforcement staff will perform inspections during weekends and evenings during the initiative.

US EPA Region I 2003-2008 Enforcement and Compliance Strategic Priorities

EPA's mission is to improve the environmental performance of business, government and the public through compliance with environmental requirements, preventing pollution and promoting environmental stewardship. Among others, approaches include:

- Complementing the enforcement efforts of states to maintain a comprehensive enforcement and deterrence presence in New England;
- Integrating compliance strategies, that is, selecting, blending or appropriately sequencing the use of incentives, enforcement and assistance to achieve improved compliance;
- Targeting sectors of concern;
- Using enforcement authorities strategically to provide federal leadership;
- Promoting environmentally sustainable practices, e.g., renewable energy and reduced water usage, in the regulated community; and
- Building strategic alliances with stakeholders to leverage efforts by others.

Section III – MA DEP Base Program Objectives, Targets and Activities

Goal 1: Clean Air

1.1 Maintain and Improve Outdoor Air Quality

1.1a^o Objective - Reduce the emissions of ozone precursors and PM 2.5 and manage emissions of other Criteria Pollutants in MA (CO, NO₂, SO₂, PM₁₀, Pb)

Baseline

- **CO:** 2nd highest 8-hour values have declined from 3.1-5.6 ppm in 1999 to 1.4-3.6 in 2002, well below the standard of 9 ppm. Emissions have dropped by 21% from 1990-1999. Inventory data for 1999 is the most recent available.
- **NO₂:** annual averages experienced no significant change between 1999 (0.004-0.030 ppm) and 2002 (0.004-0.025 ppm) remaining well below the standard of 0.05 ppm. Emissions have dropped by 6% from 1990-1999. Inventory data for 1999 is the most recent available.
- **SO₂:** annual averages are declining from 0.004-0.007 ppm in 1999 to 0.002-0.006 ppm in 2002 (all well below the standard of 0.030 ppm). Emissions have dropped by 37% from 1990-2001.
- **PM₁₀:** Annual averages are steady, ranging from 14-32 µg/m³ in 1999 to 11-31 µg/m³ in 2002 (annual standard = 50). Preliminary data indicate that all monitors are in attainment of the standards. DEP is collecting PM₁₀ inventory data for a 2002 baseline inventory.
- **PM_{2.5}:** Annual averages are declining, with ranges from 9.02-15.42 µg/m³ in 1999 to 7.5-14.6 µg/m³ in 2002 (annual standard = 15). DEP is collecting PM_{2.5} inventory data for a 2002 baseline inventory.
- **Pb:** Quarterly means have been stable at levels well below the standard (1.5 µg/m³), ranging from 0.01-0.03 in 1999 to 0.01 in 2003. DEP does not collect Pb inventory data.
- **O₃:** The trend in the number of 1-hour ozone exceedances continues to decrease over the long-term although the number of annual exceedances varies considerably based on weather conditions (5 in 1999, 1 in 2000, 10 in 2001, 22 in 2002, and 2 in 2003).. The long-term trend in the number of 8-hour ozone exceedances is unchanged. Annual exceedances vary based on weather conditions (85 in 1999, 121 in 2002; 34 in 2003). Emissions of the ozone precursor VOC have dropped by 25% from 1990-1999. Inventory data for 1999 is the most recent available.

Target

- maintain compliance with the CO, NO₂, SO₂, PM₁₀ standards
- attain the Ozone 8-hr standard by 2010 and with the 1-hr standard by 2007
- attain the PM 2.5 standards by 2010

Indicators

- Trends in air quality for carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, particulate matter, ozone, precursor volatile organic compounds, and oxides of nitrogen concentrations from the air monitoring networks (calendar years)*
- # and % of Massachusetts residents exposed to air that meets the NAAQS for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (including 2.5), and lead (Pb) (calendar years)

Outcomes

^o Note: The numbering used to identify goals and objectives is based on the EPA New England Strategic Framework. In cases where DEP's work is divided into more objectives than the EPA NE Framework, letters are added (e.g. Objectives 1.1a-f under the broad objective of Maintain and Improve Outdoor Air Quality). In cases where the EPA NE Strategic Framework included objectives that are not paralleled at DEP (e.g., EPA 1.2 Indoor Air, indoor air is addressed primarily by the MA Dept of Public Health), then the number has been skipped.

* ECOS Core Performance Measures

- # of nonattainment areas and their associated populations that reach attainment, (including the number of ozone nonattainment areas that meet the 1-hour ozone standard)(calendar year)*
- Emissions reductions since 1990 for each criteria pollutant*
- Inventory of ozone precursor emissions of oxides of nitrogen and volatile organic compounds from all source categories

Outputs

- Redesignation of areas attaining the current NAAQS, revocations of the 1-hour ozone NAAQS for areas attaining it, and designations of areas for the 8-hour ozone and PM-2.5 NAAQS*
- # of gas stations and automotive dealers trained and certified in the Enhanced Inspection and Maintenance Program
- # of gas stations self certified in the Stage II Vapor Recovery Program
- # of companies with 1,000+ employees which have submitted Rideshare Reports
- Develop ozone and particulate matter inventory specified in the 2002 Clean Air Act for use in attainment planning
- For those initial permits completed by December 2003, DEP will complete issuance of final CAA Title V permits by September 30, 2004
- # of other air permits/plan approvals issued

1.1b Objective – Reduce the transport of ozone and ozone precursors into MA from out-of state sources

Baseline

- **Ozone** – About 86% of ozone and ozone precursors in MA comes from other states (according to EPA CSI modeling).
- **PM** – No modeling of PM transport for MA is available at this time. “Background” PM appears to be about 60-80% of the maximum values in urban centers, suggesting that transport accounts for more than half of PM. No data available

Target

- Work to ensure EPA’s national air program adequately addresses transport issues

Indicators

- Trends in air quality for ozone and precursor volatile organic compounds from the air monitoring networks (calendar years) *
- # and % of Massachusetts residents exposed to air that meets the NAAQS for ozone (calendar years)

Outcomes

- # of nonattainment areas and their associated populations that reach attainment, (including the number of ozone nonattainment areas that meet the 1-hour ozone standard)(calendar year) *
- Inventory of ozone precursor emissions of oxides of nitrogen and volatile organic compounds from all source categories

Outputs

- Actively participate in the Ozone Transport Commission (OTC) to address regional transport issues
- Work with Northeast States for Coordinated Air Use Management (NESAUM) on regional ozone control strategies
- Continue to implement the California Low Emission Vehicle program
- Continue in a leadership role in State and Territorial Air Pollution Program Administrators (STAPPA) (currently MA is the Mobile Source Chair and will be the Vice President as of Fall 04).

* ECOS Core Performance Measure

1.1c Objective – Decrease the emissions of toxic air pollutants (Dioxin, Mercury, VOCS, HAPS)

Baseline

- **Dioxin:** BWP is developing a dioxin emissions inventory
- **Mercury:** Mercury emissions from Municipal Waste Combustors have declined by 90% from the mid 1990s to 2002. Since there is no existing mercury emissions standards requiring reduction of mercury emissions from power plants, such emissions have not declined.
- **PAMS:** Values for formaldehyde, acetaldehyde, benzene, toluene, and xylene for the past three years have been relatively flat. For the past three years
- **HAPS:** Air releases of Hazardous Air Pollutants decreased in calendar years 1990-2000 from 152,874,986 lbs. to 7,169,355, (a 54% reduction)
- **Asbestos:** BWP received 15,000 Asbestos demolition or removal notifications last year and inspected 812 removals. We do not have definitive information the % of demolitions and removals that are completed in compliance with the requirements

Target

- Continue to reduce air toxics emissions
- Mercury emissions from municipal waste combustors will decrease further due to pollution prevention, implementation of material separation plans, and new controls to be installed in 2003, 2004 and at two Municipal waste combustors. Reduction in power plant mercury emissions is expected upon installation of new SO₂ and NO_x controls at large power plants and upon promulgation and implementation of proposed power plant mercury regulations.
- Asbestos demolition/renovation compliance rate target to be determined through Beyond ERP

Indicators:

- Trends in emissions of toxic air pollutants (TRI supplemented by TURA)*
- Air toxics ambient data from the state's special ozone monitoring network and special monitoring studies (calendar years)
- Fresh water fish tissue concentrations of mercury

Outcomes:

- Reductions in air toxic emissions from 1990 levels*
- Reduction in daily toxic emissions resulting from the Enhanced Vehicle Maintenance Program
- Reduction in daily toxic emissions resulting from the Stage II Vapor Recovery Program
- Emissions of air toxics, in particular mercury, other heavy metals and VOCs (calendar years)
- # of mercury fresh water fish advisories/concentration of mercury in fish
- Amount of mercury diverted from the waste stream
- Stack tests results from sources emitting mercury and subject to testing requirements

Outputs:

- State progress in collecting and compiling ambient and emission source data for toxics to better understand the nature and extent of the air toxics problem* (Monitoring data results)
- # of air operating permits issued or renewed
- # of other air permits/plan approvals issued
- # of inspections
- # of enforcement actions

1.1d Objective – Minimize atmospheric deposition of acids

Baseline

- Wet deposition pH has improved from 4.4 at both MA sites in 1997 to 4.5 and 4.6 in 2002.

Target

- Reverse damage to lakes and ponds

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- Increase level of sustainable forestry

Indicators

- Wet deposition; acidity of water bodies susceptible to acidification

Outcomes & Outputs that will further this Objective are included in Objective 1.1a for emissions of criteria pollutants

1.1e Objective – Minimize atmospheric deposition of mercury in MA by reducing emissions and releases

Baseline

- Mercury emissions and releases were in the range of 1243 and 2140 pounds in 2002.
- Mercury emissions from Municipal Waste Combustors have declined by 90% from the mid 1990s to 2002. Since there is no existing mercury emissions standards requiring reduction of mercury emissions from power plants, such emissions have not declined.

Target

Contribute toward the Commonwealth's stated goals:

- Achieve at least 85% reduction in mercury emissions from power plants
- 75% reduction in mercury emissions/releases by 2010
- Eventual elimination of anthropogenic mercury use, emissions/releases

Indicators that will further this Objective are included in Objective 1.1c for emissions of toxic air pollutants

Outcomes that will further this Objective are included in Objective 1.1c for emissions of toxic air pollutants, in particular:

- Reductions in air toxic emissions from 1990 levels*
- Emissions of air toxics, in particular mercury, other heavy metals and VOCs (calendar years)
- # of mercury fresh water fish advisories/concentration of mercury in fish
- Amount of mercury diverted from the waste stream
- Stack tests results from sources emitting mercury and subject to testing requirements

Outputs that will further this Objective are included in Objective 1.1c for emissions of toxic air pollutants

1.1f - Objective – Continue to make progress on regional haze issues

Baseline

- Baseline "deciviews" to be established by the June 2004 MANE-VU Board Meeting.

Target

- Source-specific controls in place by 2013 to reduce MA contribution to haze in Class I areas.
- Achieve the regional haze standard by 2064
- Submit the interim 10-year SIP and demonstration of required emissions reductions by the due date to be determined by the EPA. The 10-yr SIP for haze will include required reductions in particulate emissions that could mean further mandatory emissions reductions at facilities.

Indicators, Outcomes & Outputs that will further this Objective are included in Objective 1.1a for emissions of criteria pollutants

1.3 Atmospheric Changes/Climate Change

1.3 - Objective – Minimize Green House Gas Emissions

Baseline

- Based on a greenhouse gas inventory developed by NESCAUM for the 1990 base year, MA emissions of CO₂ equivalents from all sources were estimated to be 115 million tons in 1990.

Target

Goals of the New England Governor's Conference are:

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- By 2010: GHG emissions = 1990 emissions
- By 2020: GHG emissions = 90% of 1990
- Eventually reduce regional GHG emissions sufficiently to eliminate any dangerous threat to the climate (75-85%) below 2001 levels

Indicators

- Emissions reductions in greenhouse gases

Outcomes & Outputs that will further this Objective are included in Objective 1.1a for emissions of criteria pollutants

1.5 Science/Research/Monitoring and Quality Assurance Activities

1.5 - Objective - Maintain the ambient air monitoring network

Baseline

- DEP meets the data capture standards for all parameters except for PM. DEP is working on a plan in consultation with EPA to improve PM data capture. Average data capture for PM2.5 rose from 70% to 80% between 2001 and 2002. DEP will continue to work to improve data capture to meet EPA's requirements.

Target

- Operate and maintain air monitoring network in compliance with 40CFR, Part 58 with a data capture rate of 75% for all contaminants

Indicators, Outcomes & Outputs for this objective are captured in the target

- Operate and maintain air monitoring network in compliance with 40CFR, Part 58 with a data capture rate of 75% for all contaminants
- DEP will maintain the recently redesigned air monitoring network, including the Long Island PAMS site, as agreed at a February 20, 2004 EPA-DEP meeting. In order to conduct canister monitoring at the Long Island site, DEP will cease canister monitoring at the Truro PAMS site.

Goal 2: Clean and Safe Water

2.1 Drinking Water/Protect Human Health and Safety

2.1a - Objective – Water that is safe to drink

Target

- Set standards for safe drinking water at PWS
- Know if delivered water is meeting standards
- Assure compliance with drinking water standards
- Support private water supply safety
- Protect existing sources
- Identify and protect future sources of drinking water

2.1b - Objective – Sufficient water for public health and safety

Target

- Promote wise use of water supply we have
- Maintain adequate pressure for fire fighting
- Assure capacity to respond to emergencies

Baseline

- No outbreaks of waterborne disease between 2001-03 (*Cryptosporidium*, *Giardia*, *enteric virus and bacteria*)
- Percent of the population served by drinking water systems with no violations of health-based standards: 2001-03 average

| Population served by Community Systems with no violations of health-based standards | Population served by Non-transient, Non-community Systems with no violations of health-based standards |
|---|--|
| Total Coliform Rule: Acute MCL –96% Monthly MCL –94% | Total Coliform Rule: Acute MCL –99% Monthly MCL –95% |
| Nitrate: 100% | Nitrate: >99% |
| Nitrites: >99% | Nitrites: 100% |
| Radiological: 100% | Radiological: N/A |
| Inorganic contaminants/metals & minerals: 100% | Inorganic contaminants/metals & minerals: 100% |
| Total Trihalomethanes/5 Haloacetic Acids: >99% | Total Trihalomethanes/5 Haloacetic Acids: N/A |
| Synthetic Organics/pesticides & herbicides: 100% | Synthetic Organics/pesticides & herbicides: 100% |
| Volatile Organic Compounds: >99% | Volatile Organic Compounds: 100% |
| Lead & Copper Rule: 97% | Lead & Copper Rule: 99% |
| Surface Water Treatment Rule: 99% | Surface Water Treatment Rule: 100% |

Indicators that DEP will report to EPA:

- # of: a) community drinking water systems and % of population served by community water systems, and b) non-transient, non-community drinking water systems and % of population served by such systems, with no violations during the year of any federally enforceable health-based standard (EPA will develop language clarifying meaning of “federally enforceable”).*
Note: “Health-based requirements” were interpreted as MCL violations for TCR and nitrate, failure to install optimal treatments for LCR, failure to filter for SWTR, and MCL violations for other regulated contaminants.
- # of waterborne disease outbreaks (*Cryptosporidium*, *Giardia*, *enteric virus* and *bacteria*)

Outcomes that DEP will report to EPA:

- Estimated number of community water systems (and estimated % of population served) implementing a multiple barrier approach to prevent drinking water contamination (EPA and States will expeditiously define “multiple barrier approach”)*
- # and % of systems with approved distribution protection plans
- # and % of systems with boil orders for bacteria that are returned to compliance
- # of newly identified systems with MCL violations
- # and % of systems exceeding the lead action level
- # and % of exceedances of the Action Level for lead resolved as a result of the DEP/DPH Referral Program for Lead Poisoned Children
- # and % of systems with improved capacity
- # and % of systems with certified operator
- # and % of systems who completed Consumer Confidence Reports

Outputs that DEP will report to EPA:

- # of Comprehensive Compliance Evaluations (CCEs)
- DEP and EPA will work to develop and implement DEP’s proposed pilot program for a new type of sanitary survey program which will be risk-based and which will also provide appropriate coverage of systems
- # of sanitary surveys

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- # of UIC inspections, wells returned to compliance, and outreach events (1999 text)
- # of on-site laboratory audits/inspections
- DEP will maintain its commitment to timely on-site drinking water laboratory audits/inspections. Inspections at all remaining state microbiological laboratories will be complete by December 31, 2004 (approximately 36 inspections for 2004)
- # of laboratories certified for microbiological and chemical analyses under the SDWA certification program
- # of capacity development reviews
- # of operators certified or recertified
- # of water quality monitoring reports reviewed
- # of monitoring waivers reviewed and granted
- DEP will: a) work with MWRA and member communities to address comments on MWRA's sampling plan for lead and copper; b) respond to an invalidation request by MWRA on the September 03 sampling; c) establish water quality control parameters for optimal corrosion control treatment; d) address any item relating to the MWRA's notice of noncompliance and compliance with the Lead and Copper Rule; and e) continue to coordinate with EPA to address regional and national inquiries relating to overall compliance with the Lead and Copper Rule.
- Technical assistance to public water suppliers
- Of 1499 sources potentially subject to the GWUDI rule, 1450 were determined to be exempt – of 49 non-exempt sources: 4 were shut down, 14 are currently conducting MPA, 9 have plans to or have installed replacement or new wells, 2 are planning to install treatment, and DEP is working with the remaining 20 non-exempt systems to help them decide on the appropriate compliance option by September 30, 2004
- # of loans to assist in achieving compliance with SDWA requirement
- # of source protection plans reviewed and approved
- # of source water assessments
- # of Water Management Act (WMA) permits for sources pumping more than 100,000 gallons per day

2.2 Surface and Ground Water/Assure Clean Water and Healthy Ecosystems

2.2a - Objective – Protect Water Quality/Assure Clean Water

Target

- Set water quality standards
- Know condition of surface and ground waters
- Prevent water quality degradation
- Control pollution from point sources
- Control pollution from nonpoint sources
- Restore degraded water quality
- Submit an Integrated 310(b)/303(d) list by April 1, 2004 and an electronic update by April 1, 2005
- Submit a draft Massachusetts Comprehensive Monitoring and Assessment Strategy for surface water by June 30, 2004 and a final by September 30, 2004
- Participate in the New England Lakes and Ponds Study planning meeting during FY 04
- Continue working on TMDL Innovations project

2.2b - Objective – Sufficient Water for Healthy Ecosystems

Target

- Set flow standards
- Know flow condition of surface waters

- Know reasons for flow impairments
- Control water withdrawals
- Prevent water flow degradation
- Restore water bodies with impaired flow

Baseline

Below data are based on final approved 2002 305(b)/303(d) Integrated List showing which Massachusetts waters support their designated uses under the Federal Clean Water Act.

| |
|---|
| <p>Overall River Miles: 9% fully support; 3.5% partially support; 10% do not support; 78% not assessed.</p> <p>Assessed River Miles: 40% fully support; 16% partially support; and 44% do not support any use.</p> <p>River Miles: total assessed = 1,791.</p> <p>Zero miles (0%) support fish consumption (statewide advisory);</p> <p>488 miles (27%) fully support primary contact;</p> <p>670 miles (37%) fully support secondary contact;</p> <p>798 miles (45%) fully support aquatic life.</p> |
| <p>Overall Lake Acres: 20% fully support; 15% partially support; 40% do not support; 25% not assessed.</p> <p>Assessed Lake Acres: 26% fully support; 20% partially support; and 54% do not support any use.</p> <p>Lake Acres: total assessed = 112,598 acres.</p> <p>Zero acres (0%) support fish consumption (statewide advisory);</p> <p>2,216 acres (2%) fully support primary contact;</p> <p>80,525 acres (71%) fully support secondary contact;</p> <p>2,840 acres (3%) fully support aquatic life.</p> |
| <p>Overall Marine Waters: 2.5% fully support; 0.9% partially support; 5% do not support; 91.5% not assessed.</p> <p>Assessed Marine Waters: 31% fully support; 10% partially support; and 59% do not support any use.</p> <p>Marine Sq. Miles: total assessed = 227</p> <p>Zero sq. mi. (0%) support fish consumption (statewide advisory);</p> <p>132 sq. mi. (58%) fully support primary contact;</p> <p>145 sq. mi. (64%) fully support secondary contact;</p> <p>68 sq. mi. (30%) fully support aquatic life;</p> <p>77 sq. mi. (34%) support shell fishing.</p> |

Below data is Massachusetts Division of Marine Fisheries data as of Jan. 21 2003 showing Massachusetts inspected and assessed shellfish beds and their availability for use.

| |
|--|
| <p>Assessed Shellfish Beds:</p> <p>1,442,874 acres approved;</p> <p>31,721 acres combined restricted and conditionally open;</p> <p>142,298 acres prohibited.</p> |
|--|

Indicators that DEP will report to EPA:

- # and % of assessed river miles, lake acres, and estuary square miles that have water quality supporting beneficial uses, including, where applicable, for: a) fish and shellfish consumption; b) recreation; c) aquatic life support; d) drinking water supply (The reporting period is two years)*
Note: (DEP reports on support of aquatic life, fish consumption, swimming, and secondary contact such as boating every two years. These items are called “uses.” The same waters are not assessed each year, nor are all waters assessed each year; as such, the data should not be used to identify trends.)
- # of assessed acres open, conditionally open, restricted, and closed to shell fishing (MA Division of Marine Fisheries data)

Outcomes that DEP will report to EPA:

- # and % of impaired, assessed river miles, lake acres, and estuary square miles that

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- are covered under Watershed Restoration Action Strategies or TMDL's, and
- were restored to their designated uses during the reporting period. (The reporting period is two years.)*
- % of POTWs that are beneficially reusing all or a part of their biosolids and, where data exists, the % of biosolids generated that are beneficially reused*
- % of NPDES discharge permittees in compliance with permit effluent limits
- # of assessed river segments, lakes, and ponds with water quality impairments

Outputs that DEP will report to EPA:

- DEP water quality assessment reports
- DEP Watershed Action Strategies/Plans
- 303(d)/305(b) Integrated List update
- DEP will submit for EPA approval 15 TMDLs with expected dates of completion as follows:
 - 5 Chatham nutrient TMDLs – June 2004
 - 4 segments Assabet TMDL – April 2004
 - 2 estuary bacteria TMDLs – June 2004
 - 1 final Kickemuit bacteria TMDL (EPA and RI lead) – depends upon EPA and RI
 - 3 Palmer River bacteria TMDLs – May 2004
- DEP will continue involvement with the following TMDLs where data collection has commenced or where other TMDL related activities have been initiated:
 - Popponnesset Bay
 - Waquoit Bay
 - Great, Green and Bourne Estuaries
 - Oyster Pond, West Falmouth Harbor, Sesachacha Pond
 - Shasheen Headwaters
 - Nashua River
 - Upper and Lower Charles nutrient TMDL in collaboration with MWRA and EPA
- % of river miles and lake acres that have been assessed for the need for fish consumption advisories; and compilation of state-issued fish consumption advisory methodologies, as reported through the National Listing of Fish and Wildlife Advisories*
- The TMDL status, including:
 - a) the number of TMDLs identified on the 303(d) list that the state and EPA have committed to produce in the two year cycle;
 - b) the number of TMDLs submitted by the state to EPA;
 - c) the number of state-established TMDLs approved by EPA; and
 - d) the number of EPA-established TMDLs. (This cumulative measure would be jointly reported by EPA and the state.) *
- DEP will submit a draft Comprehensive Water Monitoring and Assessment Strategy by June 30, 2004 and a final Strategy by September 30, 2004.
- DEP will participate in the New England Lakes and Ponds Study planning meetings during FY04.
- DEP will implement the Assessment Database System (ADB) and being evaluating use of STORET.
- DEP and EPA will meet monthly to discuss upcoming NPDES permits, NPDES items awaiting DEP action, NPDES items awaiting EPA action and to identify any issues that prevent a state water quality certification from being issued within a two week time frame (goal) from EPA request.
- # and % of facilities that have a discharge requiring an individual surface water discharge permit: a) that are covered by a current individual permit; b) that have expired individual permits; c) that have

applied for but not been issued an individual permit, and d) that have individual permits under administrative or judicial appeal.*¹

- # of storm water sources associated with industrial activity, # of construction sites over five acres, and # of designated storm water sources (including Municipal Phase I) that are covered by a current individual or general NPDES permit.*¹
- # of permittees (approximately 24 CSO communities statewide) that are covered by NPDES permits or other enforceable mechanisms consistent with the 1994 CSO policy.*¹
- # and % of approved pretreatment programs audited in the reporting year. Of those, the # of audits finding significant shortcomings and the # of local programs upgraded to achieve compliance.*¹

2.2c - Objective –Minimize the discharge of contaminated industrial wastewater to sewers, surface waters and groundwater

Baseline

- DEP ensures that 161 industrial surface water dischargers, 65 industrial groundwater dischargers comply with applicable discharge limits. (50 of the groundwater dischargers are non-notifiers)
- There are tens of thousands of sewer dischargers that DEP is not presently regulating.
- Compliance rates are presently unknown

Target

- Target compliance rates to be determined through Beyond ERP

Indicators, Outcomes & Outputs to be set in conjunction with determining the target compliance rate

2.3 Intact and Functioning Wetlands

2.3 - Objective – Intact functioning wetlands

Baseline

- Of the 85% of the state that has been mapped and digitized to show acres of wetlands maintained over time, approximately 568,000 acres are inland and coastal wetlands (not including open water areas and their associated resources).
- Change detection of the areal extent, density and distance to the outer edge of plant growth for eelgrass (*Zostera marina*) aquatic beds has been completed. An historic mapping interpretation of the 1951 coverage is being completed and the entire dataset (1951, 1995, 2001) will be available on the Massachusetts GIS distribution system by March 2004.
- Wetlands change analysis has been completed for the eastern third of the state (Northeast and Southeast Regions). Accurate change data has been quantified for each community within these regions. Over 700 acres of previously mapped wetlands have been altered.
- Research of the local permit history of a significant portion of these wetlands change sites is indicating that over 50% of the wetland change covered in this permit research project are unpermitted.

Target

Know extent of wetlands loss

- Identify causes of wetlands loss
- Prevent losses by addressing most significant causes
- Control losses through efficient and effective permitting
- Work toward protection of wetland functions

Indicators that DEP will report to EPA:

- Acres of wetlands in Massachusetts maintained over time

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¹ DEP will rely on EPA reporting on these ECOS core performance measures because Massachusetts does not have NPDES delegation.

- Areal extent, density, and distance to the outer edge of plant growth for several eelgrass (*Zostera marina*) aquatic beds in selected estuaries

Outcomes that DEP will report to EPA:

- Acres of wetlands lost (through permitting process and estimate of acres lost from illegal fill)
- Acres of wetlands restored or replicated through the permitting
- Acres of wetlands restored or replicated due to enforcement

Outputs that DEP will report to EPA:

- Report on progress of statewide mapping of wetlands and coastal eelgrass
- Report on status of wetlands lost compared to wetlands restored and/or replicated.

Goal 3: Preserve and Restore the Land

3.1 Objective - Maximize Risk Reduction at Waste Sites

Outcome:

- Work to ensure that PRPs achieve a compliance rate of at least 75 percent for Immediate Response Action (IRA) submittal requirements, measured one year after discovery of the condition requiring the IRA.

Baseline:

- At this time, no environmental indicators have been developed for this goal; many states, EPA and organizations such as the Association of State and Territorial Waste Management Officials (ASTWMO) are working to develop appropriate indicators.
- DEP tracks and reports extensive information on site-specific risk reduction measures (for the data from 2001-2003, see DEP's *Final Progress Report on the Federal Fiscal Year 2003 Performance Partnership Agreement*).

Target 1: Ensure Implementation of Mandatory Risk Reduction Measures

Outputs:

- Provide technical assistance to parties proposing IRAs
- Oversee response actions in the field and mobilize state contractors where responsible parties cannot or will not respond
- Provide oral approvals of IRA Plans
- Review and approve follow-up written IRA Plans
- Perform field visits to oversee IRAs in progress
- Track progress in the database to ensure timely implementation of IRAs
- Review IRA Completion Statements
- Enforce deadlines for PRPs to perform mandatory risk reduction measures

Target 2: Oversee and Perform Emergency Response Activities

Outputs:

- Work with federal, state, and local authorities to plan for and define DEP's role in any future incidents involving weapons of mass destruction.
- Coordinate with the Coast Guard when oil or hazardous material is released to the ocean, and act as the State On-Scene Coordinator (SOSC) in the Incident Command System (ICS).
- Respond to fish kills, in accordance with an inter-agency memorandum of understanding (MOU) with the Department of Fish and Game
- Respond to releases on state highways, in accordance with an MOU with the Massachusetts Highway Department
- Coordinate with the Massachusetts Department of Public Health in responding to releases of medical waste to the environment

- Respond with the Department of Fire Services Regional HazMat teams and coordinate remediation of hazmat incidents

Target 3: Address Serious Risks Using Public Funds with State Contractors

Outputs:

- Conduct time-critical assessment and remediation activities (such as residential indoor air evaluation, emergency water supply) to address risks to sensitive receptors in cases where there is no known, willing, or able PRP
- Investigate potential sources of contamination and conduct targeted remediation to protect municipal water supplies in various communities
- Recover, to the maximum extent possible, the costs incurred by DEP in performing publicly funded risk reduction actions

Target 4: Triage

Outputs:

- Screen response action submittals and identify IRA, risk reduction, and enforcement needs and opportunities
- Refine triage process, criteria, and forms as needed to reflect and better support program operations in the face of significant staffing reductions
- Ensure appropriate level of IRA and other follow-up at those sites where risk and/or enforcement concerns are greatest

Target 5: Provide Direct Oversight of Response Actions at the Most Complex Sites

Outputs:

- Identify sites (through triage and other means) that pose the most concern with respect to complexities and/or risks to health, safety, public welfare, or the environment
- Identify specific IRA conditions and/or contaminant transport/exposure pathways where direct DEP oversight is necessary to ensure adequate short and/or long-term progress and resolutions (such as sites posing threats to public drinking water supplies)
- Articulate specific objectives and parameters of DEP oversight, and assign staff accordingly
- Review on at least an annual basis the need to maintain direct DEP oversight, considering site conditions, progress made on achieving objectives, resource availability, and oversight needs at other sites

3.2a - Objective – Reduce Solid Waste and Promote Recycling

Baseline

- As of 2001, 57% of the solid waste stream in the Commonwealth has been diverted from disposal through source reduction and recycling, this compares to 51% in 1999.
- 12.8 million tons of solid waste were generated in Massachusetts in 2001 compared to 13.0 million tons in 2000

Target

- By the year 2010 achieve 70% waste reduction (which includes both source reduction and recycling), including:
 - 60% municipal solid waste (MSW) waste reduction, and
 - 88% construction and demolition (C&D) waste reduction

Indicators for this objective are captured in the target

Outcomes

- Total (# of tons) municipal solid waste generated (calendar year)
- Annual amount (# of tons) of solid waste recycled and composted relative to the amount generated (calendar year)

- Amount of solid waste disposed in landfills, resource recovery facilities relative to the total generated in-state (calendar year)

Outputs

- # of Beneficial Use Determinations
- Grant dollars distributed
- Amount of solid waste diverted from the waste stream through bottle Bill redumptions
- # of inspections
- # of enforcement actions

3.2b - Objective – Prevent contamination of land and water by ensuring that Solid Waste Management Facilities are properly designed, constructed, operated and maintained, and closed

Baseline

- BWP oversees the design, construction, operation, and closure of
 - Active Landfills: 28
 - Inactive Landfills: 426
 - Active Transfer Stations: 194
 - Active Compost Facilities: 3
- Compliance rates are presently unknown

Target

- Target compliance rates to be determined through Beyond ERP

Indicators to be set in conjunction with determining target compliance rate

Outcomes

- Volume of leachate collected at operating landfills (calendar year)
- # of solid waste transfer stations that are in compliance with selected requirements

Outputs

- # of solid waste facility permits and plan approvals
- # of unlined landfills properly closed with impermeable caps
- # of landfill sites authorized for reuse for open space and/or recreation
- # of inspections
- # of enforcement actions

3.2c - Objective - Prevent contamination of land and water by ensuring that hazardous wastes are managed safely

Baseline

- BWP oversees hazardous waste management at over 20,000 generators, 1,500 hazardous waste recyclers, and 12 Treatment Storage and Disposal facilities.
- Compliance rates are presently unknown

Target

- Target compliance rates to be determined through Beyond ERP

Indicators to be set in conjunction with determining the target compliance rate

Outcomes

- % of hazardous waste managed at Treatment, Storage, and Disposal Facilities (TSDFs) with approved controls in place*
- Annual generation of hazardous waste (# of tons) safely managed
- Weight or volume of household hazardous wastes collected and reused, recycled or properly disposed

Outputs

* ECOS Core Performance Measure

- % of hazardous waste managed at Treatment, Storage and Disposal Facilities (TSDF's) with approved controls in place*
- # of hazardous waste related permits/plan approvals
- # of inspections
- # of enforcement actions

3.3a - Objective – Oversee clean ups at RCRA Corrective Action Sites

Baseline

- BWP is presently overseeing clean up work at 21 Corrective Action Sites

Target

- Target compliance rates to be determined through Beyond ERP

Indicators to be set in conjunction with determining target compliance rate

Outcomes & Outputs

Activities targeted at controlling or preventing the spread of contamination, preventing human exposure to such releases, and reducing the risk to human exposure and the environment* as measured by:

- % of the 24 listed corrective action sites at which the assessment is complete (Goal of 100% by 2008)
- % of the 24 listed corrective action sites at which human health exposure has been controlled* (Goal of 95% by 2008)
- % of the 24 listed corrective action sites at which groundwater contamination controls are in place (Goal of 80% by 2008)
- % of the 24 listed corrective action sites for which a corrective remedy decision has been made,
- % of the 24 listed corrective action sites at which the corrective action decision has been implemented* (Goal of 20% by 2008)

3.3b - Objective – Increase the rate of cleanup actions at waste sites

Outcome

- Work to ensure that Response Action Outcome or Remedy Operation Status statements are submitted within six years of release notification for at least 85 percent of sites.
- Report on the number of LUST cleanup initiated/completed.*

Baseline:

- At this time, no environmental indicators have been developed for this goal; many states, EPA and organizations such as the Association of State and Territorial Waste Management Officials (ASTWMO) are working to develop appropriate indicators.
- DEP tracks and reports extensive information on site-specific clean-up measures (for the data from 2001-2003, see DEP's *Final Progress Report on the Federal Fiscal Year 2003 Performance Partnership Agreement*).

Target 1 - Enforce Against Parties Not Performing Cleanups

Outputs:

- Enforce against parties who fail to notify DEP of releases as required by the MCP
- Issue anniversary reminder letters
- Strive to ensure first year preliminary response action compliance
- Issue Notices of Noncompliance and Interim Deadline letters
- Issue penalties and unilateral orders
- Negotiate Administrative Consent Orders
- Identify sites without viable PRPs and develop case-specific strategies to address them
- Identify recalcitrant PRPs and develop case-specific strategies to address them

Target 2 - Streamline and Maintain Compliance Tracking Systems

Outputs:

- Create records in the Waste Site Cleanup (WSC) database after receiving notice of a release or threat of release
- Enter information from transmittal forms into the WSC database as reports are received
- Enter information into the WSC database summarizing DEP-issued correspondence
- Perform queries to evaluate the status and history of submittals at individual sites or categories of sites, and to generate compliance reports for targeted enforcement
- Automate the generation of Notices of Noncompliance (NONs)
- Develop analysis tools to improve evaluation of deadline compliance
- Evaluate and revise BWSC transmittal forms as needed
- Increase use of BWSC online transmittal forms with incentives and through outreach to LSPs and PRPs
- Improve user interface of WSC database by staff, both in the field and in the office

Target 3 - Encourage Deadline Compliance by Collecting Annual Compliance Fees**Outputs:**

- Continue to review and invoice fixed Annual Compliance Fees
- Continue to streamline billing procedures

3.3c - Objective – Ensure the quality of cleanup at waste sites**Outcome**

- Work to ensure that the number of sites receiving comprehensive compliance reviews or other dispositive compliance and enforcement follow-up, is at least equal to the number of sites recommended for such follow-up as the result of audits.

Baseline:

- At this time, no environmental indicators have been developed for this goal; many states, EPA and organizations such as the Association of State and Territorial Waste Management Officials (ASTWMO) are working to develop appropriate indicators.
- DEP tracks and reports extensive information on site-specific clean-up measures (for the data from 2001-2003, see DEP's *Final Progress Report on the Federal Fiscal Year 2003 Performance Partnership Agreement*).

Target 1 - Maintain Compliance Checks/Inspections for Privatized Cleanups**Outputs:**

- Conduct site audits as required by law:
 - Level 1 audits (submittal screening)
 - Level 2 audits (field inspections to ensure that IRAs, RAMs, Remedy Operation Status, and AUL Obligation and Maintenance conditions are properly implemented)
- Audit all sites at which Activity and Use Limitations have been implemented
- Publish a periodic column of audit findings in LSPA newsletter
- Conduct a LSP training series on audit case studies

Target 2 - Conduct Enforcement to Address Noncompliance with MCP Performance Standards**Outputs:**

- Review response actions to evaluate quality
- Conduct comprehensive compliance reviews
- Issue NONs or higher level enforcement to PRPs who violate the MCP requirements

- Refer LSPs whose opinions persistently or egregiously violate MCP performance standards to the LSP Board for disciplinary investigation
- Issue NONs or higher level enforcement against LSPs or consulting firms who perform work that persistently or egregiously violates MCP performance standards
- Refer cases to the Attorney General for civil or criminal enforcement
- Provide technical support and/or testimony in support of LSP Board disciplinary investigations and AG enforcement actions

Target 3 - Ensure that Policies and Regulations Promote Program Goals

Outputs:

- Issue Wave 2 public hearing draft
- Finalize data enhancement program
- Issue Q&As
- Issue final Feasibility of Achieving or Approaching Background policy
- Issue draft policies on feasibility evaluations for
 - Critical Exposure Pathways
 - Permanent vs. Temporary Solutions
 - Selection of Remedial Action Alternatives
 - Reducing/Detoxifying OHM Present at a Site Above UCLs
 - Destruction/Detoxification vs. Capping
- Issue Best Management Practices for Development of Trails on Abandoned Rail lines
- Issue final Monitored Natural Attenuation guidance
- Issue final asbestos-in-soil policy

Target 4 - Provide Direct Oversight for Federal Sites (Note most activities scheduled for FY 2004 only)

Outputs:

National Priorities List

- Complete takeover and implementation of operation and maintenance activities at the Baird and McGuire site
- Work with property owner and developers at the Norwood PCB site to ensure work is conducted in a manner that maintains the protectiveness of the remedy
- Work with the PRPs for the Haverhill Landfill to remove or secure buried drums
- Complete the agreement with the Army and implement drum removal at the Starmet site
- Work with EPA to develop an acceptable long-term solution for the Silresim site
- Work with EPA and the PRPs to develop an acceptable remedial solution for the Shpack site
- Work with EPA and the PRPs to complete and implement institutional controls at the Industri-Plex site
- Serve on the New Bedford Harbor Portsfields Steering Committee to coordinate redevelopment of the port area
- Continue work with EPA at numerous other sites
- Provide regulatory oversight in close coordination with the EPA (state serves as a concurring agency) in support of the Massachusetts Military Reservation (MMR) Installation Restoration Program (IRP) managed by the Air Force Center for Environmental Excellence.

MMR Impact Area Groundwater Study (IAGS)

- Conduct the following work in connection with the investigation and remediation being conducted at the MMR by the Army and managed by the Army Environmental Center (AEC)
 - Develop regulatory guidance, standards, and policies relating to management of perchlorate and other Impact Area-related hazardous materials (HMX, RDX) that do not currently have state or federal drinking water or cleanup standards (see Section II Goal 3, Item 1, Massachusetts Military Reservation: Perchlorate in Groundwater)
 - Execute technical reviews and provide comments and recommendations on documents or data submitted to DEP
 - Identify, evaluate, and explain MCP requirements related to response actions
 - Execute site visits and participate in activities subject to public involvement requirements, including participation in Technical Review Committees (i.e., IART)
 - Prepare and administer related agreements including reimbursement of costs associated with obtaining and analyzing split samples
 - Review and inspect operations and maintenance of remedial response systems
 - Attend staff meetings and conferences in support of the IAGS program.

Pre-remedial/Multi-Site Cooperative Agreement

- Make recommendations regarding Eligible Response Site Status for sites on CERCLIS
- Evaluate sites for listing on CERCLIS
- Evaluate sites for recommendation to NPL
- Evaluate sites on CERCLIS for federal vs. state lead, and for removal from CERCLIS
- Work with EPA on removal actions for time-critical projects

Brownfields Cooperative Agreement

- Enhance public record of sites, as necessary, to ensure it meets requirements for continued funding
- Begin establishment of survey and inventory of brownfields sites in Massachusetts
- Implement 3 – 4 Brownfields Site Assessments (expected to include sites in Amesbury, Whitman, and Ashland)
- Perform Site Manager role for municipalities that need assistance implementing Brownfields Revolving Fund Loan and Brownfields Cleanup Grant projects

Federal Facilities

- Complete agreements necessary for early transfer of South Weymouth Naval Air Base and transfer/privatization of cleanup activities
- Work with the Navy on the early Covenant Deferral Request for the Naval Weapons Industrial Reserve Plant
- Continue work with EPA and DoD at numerous other sites
- Develop and submit Defense/State Memorandum of Agreement Cooperative Agreement for new funding for oversight activities
- Complete the final phase of the FUDs pilot project with the Department of the Army; evaluate possible additional activities for joint effort

Leaking Underground Storage Tank (LUST)

- Complete Winton's Food & Fuel (Palmer) Pay-for-Performance remedial project
- Implement LUST Cooperative Agreement Work Plan

ASTSWMO

- Serve as chair of the State/EPA Superfund Task Force Working with EPA and states on issues related to Superfund
- Serve as chair of the Sediments Task Force working with EPA and states on issues related to evaluating and remediating contaminated sediments
- Serve on the State Response and Brownfields Programs Operations Task Force working with EPA and the states on issues related primarily to Brownfields programs and implementing the new Brownfields Law

- Serve on the Federal Facilities Training and Technology Transfer (T3) Focus Group tasked with improving partnership between state and federal agencies and producing issue papers to promote state interests on issues affecting environmental restoration at federal facilities
- Serve on the Federal Facilities DSMOA Task Force working with DoD and the states on issues related to federal facilities

NEWMOA

- Continue to work with EPA and the other New England states on issues common to the region, including brownfields, institutional controls, and improving the quality of site characterization

Goal 4: Healthy Communities and Ecosystems

4.1 - Objective – Decrease the use and release of toxic substances (TURA Program)

Baseline

- As a result of the Toxics Use Reduction Program, participating Massachusetts' manufacturers have reduced their use of toxics by 41%, as of 2002.

Target

- Continue to reduce toxics use and releases, target to be determined through Beyond ERP
- Reduce the quantity of toxic byproducts generated per unit of production

Indicators

- The lbs. of pollution reduced in response to enforcement actions and the % of total reductions achieved through enforcement actions

Outcomes

- # of new ERP industrial sectors developed
- #of ERP companies in the system
- Amount of mercury diverted from the waste stream
- # of mercury fresh water fish advisories/concentrations of mercury in fish
- % of non-product outputs reduced for TURA reporters
- % of non-product outputs reduced for TURA reporters with waste normalized for production
- Quantity (# of lbs.) of toxics used and generated as waste by-products (calendar year)

Outputs

- Publication of TURA Information Release
 - # of new ERP industrial sectors developed
 - #of ERP companies in the system

4.2a - Objective – Decrease the toxicity and amount of all waste streams through pollution prevention and recycling

Baseline

- Mercury emissions and releases were in the range of 1243 and 2140 pounds in 2002.
- As of 2000 85% of the households had convenient access to hazardous waste disposal
- In 2001, 4,200 tons of hazardous products were diverted from the waste stream
- Large Quantity Toxics Users had reduced the amount of their toxic byproduct (waste prior to treatment) by 69%, between 1990 and 2001.
- Massachusetts' manufacturers also reduced their on-site releases of chemicals by 92% between 1990 and 2001.
- In 2003, 135 facilities were subject to higher level enforcement actions, At least 10% of these enforcement actions included explicit requirements for pollution prevention through source reduction, with documented reductions of at least 135 tons per year of air pollution and hazardous waste, 13,000 gallons per year of wastewater and 9 million gallons per year in water conservation.

- In 2003, 11 facilities agreed to adopt an environmental management system as a response to DEP higher level enforcement. This is 8% of the facilities where DEP carried out higher level enforcement.
- In 2003, five facilities agreed to adopt a Supplemental Environmental Project as a response to DEP higher level enforcement. This is 4% of the facilities where DEP carried out higher level enforcement.
- In 2003, about 540 smaller lower level enforcement actions have various pollution prevention incentives, including information regarding OTA to reduce their waste.

Target

- 75% reduction in mercury emissions/releases by 2010
- Eventual elimination of anthropogenic mercury use, releases/emissions
- Continue to reduce the quantity of toxics byproduct generated per unit of production through Beyond ERP
- Substantially reduce the use and toxicity of hazardous consumer products
- Provide convenient hazardous product collection services to all residents and very small quantity hazardous waste generators by 2010
- Continue to foster the use of the best hazardous waste management techniques
- Promote Pollution Prevention as the preferred means of compliance with environmental regulations
- Continue to incorporate P2 concepts in program design
- Continue to increase the pounds of pollution reduced in response to enforcement actions and the percent of total reductions achieved through enforcement actions
- Continue to increase the number of facilities that adopt P2 in response to an enforcement action and the % of facilities doing so
- Continue to increase the number and % of facilities that adopt EMS in response to DEP enforcement action
- Continue to increase the number and % of facilities that adopt SEPs in response to DEP enforcement action
- Continue to increase the value of SEPs adopted in response to DEP enforcement actions
- Continue to increase the number of facilities involved in other environmental stewardship activities

Indicators

- # of facilities that adopt P2 in response to an enforcement action and the % of facilities doing so

Outcomes

- For TURA reporters, the % of production units reflecting reductions from P2

Outputs

- # of new ERP industrial sectors developed
- # of ERP companies in the system
- # and % of facilities that adopt EMS in response to DEP enforcement action
- # and % of facilities that adopt SEPs in response to DEP enforcement action

4.2b - Objective – Facilitate the Restoration and Redevelopment of Brownfield Properties

Outcome

- Work to assist communities by implementing up to 10 brownfields sites assessments (subject to funding).
- Work to ensure that at least 10 percent of municipalities begin compiling brownfields inventories.

Baseline:

- At this time, no environmental indicators have been developed for this goal; many states, EPA and organizations such as the Association of State and Territorial Waste Management Officials (ASTWMO) are working to develop appropriate indicators.

Target 1- Identify Brownfields Projects for Program Assistance

Outputs:

- Promote and assist in the use of the Special Project Designation (SPD), a tool that provides increased flexibility on cleanup deadlines for certain types of projects
- Work with EOEA to implement the Environmental Justice Policy
- Hold bi-monthly meetings with regional coordinators
- Generate 12 monthly reports for the Commissioner
- Provide technical outreach to project proponents on regulatory issues, and promote the use of financial and liability incentives
- Lead monthly partner meetings with state and federal staff monthly
- Continue to track DEP brownfields involvement using time codes and other tools
- Provide letters of support to entities applying for EPA brownfields grant funding
- Conduct four EPA funded brownfields site assessments using state contractors
- Work with state partners toward developing an inventory of brownfields sites
- Provide assistance to communities receiving cleanup grant funding through the EPA Cleanup Grant Program
- Continue to provide assistance to communities that have received funding through the Brownfields Cleanup Revolving Loan Fund Program.
- Provide support to the Office of Commonwealth Development and the Executive Office of Environmental Affairs on Brownfields Policy development and Transit-Oriented Development (TOD) discussions.
- Assist the state chapter of the National Brownfields Association (NBA)
- Participate on the review panel for the Brownfields Redevelopment Access to Capital Program
- Target proactive outreach to 15 municipalities
- Assist the AGO in reviewing 15 Covenant Not to Sue applications
- Promote the redevelopment of priority lien sites
- Conduct pre-permit meetings in regions for brownfields project proponents as needed
- Organize and speak at public outreach forums

Target 2 – Implement Brownfields Cooperative Agreement

Outputs:

- Enhance public record of sites, as necessary, to ensure it meets requirements for continued funding
- Begin establishment of survey and inventory of brownfields sites in Massachusetts
- Implement 3 – 4 Brownfields Site Assessments (expected to include sites in Amesbury, Whitman, and Ashland)
- Perform Site Manager role for municipalities that need assistance implementing Brownfields Revolving Fund Loan and Brownfields Cleanup Grant projects

4.4a - Objective – Bio Monitoring

Baseline

- This work is monitoring done in conjunction with Homeland Security. It is a new objective and there is no baseline or benchmark at this time.

Target

- Successful operation of monitoring network and data capture

4.4b - Objective – Assist in Enhancing Homeland Security

Baseline

- This work is monitoring done in conjunction with Homeland Security. It is a new objective and there is no baseline or benchmark at this time.

Target – Participate in Planning, Preparedness and Response with State and Federal Agencies
Outputs:

- Interface and coordinate planning and preparedness on Homeland Security matters with the US EPA, the Region I Regional Response Team (RRT), the US Department of Homeland Security, the Massachusetts National Guard Civilian Support Team (CST), the US Coast Guard (Providence and Boston), MEMA, the Massachusetts Department of Fire Services and its District Hazardous Material Response Teams, and other appropriate federal, military, state, and local authorities
- Provide field and technical support during Homeland Security incidents focusing on identifying and protecting environmental receptors and managing decontamination and other waste materials

Section III-EPA Base Program Objectives, Activities and Outputs

Goal 1: Clean Air

1.1 Maintain and Improve Outdoor Air Quality

Ozone and Particulate Matter Attainment Planning

- Finalize designations for nonattainment or attainment areas for the 8-hour ozone standard by April 2004
- Work with DEP on its recommendation for designation of attainment and nonattainment areas for the new fine particulate matter standard due to EPA by February 15, 2004
- Finalize designations for nonattainment or attainment areas for the fine particulate matter standard by December 2004
- Host a two-day emissions inventory workshop in December, 2003, geared towards assisting the states with development of their 2002 base year inventories for the 8-hour ozone and PM programs
- Provide additional assistance through the Winter and Spring of 2004 to help the states meet June 1, 2004 deadlines for submittal of their 2002 emissions data electronically to EPA's national emissions inventory (NEI) database, and for submittal of their draft 2002 SIP inventory documentation reports
- Review and provide comments to the states on their draft 2002 SIP inventory documentation reports
- Approve the State's SIP, if appropriate, the state's 2002 final SIP inventories, which are due to EPA by June 1, 2005
- Participate in a DEP workgroup to recommend changes to the I/M program to improve the test and oversight program
- Continue to issue press releases and smog alerts warning of elevated ozone levels and elevated levels of fine particles when appropriate (the smog alert service currently notifies 2,000 interested organizations and individuals of predicted poor air quality via fax or e-mail)
- Continue to assist the New England states with their ozone and fine particle forecasting efforts and to produce the daily ozone forecast map for the NESCAUM states. Outreach to the media will be done to promote the use of air quality forecasts in newspapers and on television.
- Conduct a workshop on air quality outreach and forecasting for the New England states
- Award and oversee \$483,000 grant to the City of Medford to retrofit 54 school buses with diesel particulate matter filters and fuel the entire fleet of 65 buses with ultra low sulfur diesel fuel, for use in Medford and 13 neighboring communities
- Oversee Supplemental Environmental Project for diesel engine retrofits on school buses in City of Boston
- Manage two grants of \$6,000 each to Massachusetts DEP for the production and distribution of a school bus driver anti-idling training video as well as accompanying educational materials
- Identify and negotiate new Supplemental Environmental Projects for retrofits/cleaner fuels for diesel engines
- Manage \$75,000 grant and provide technical assistance to the MBTA for the pilot retrofit of a commuter locomotive engine with an oxidation catalyst
- Manage \$64,000 to the City of Boston to work with the touring trolley companies to retrofit their vehicles with oxidation catalysts and encourage the use of ultra-low sulfur diesel fuel
- Facilitate the implementation of a pilot project in Boston designed to reduce air pollution and air toxics from transportation sources through increased participation in EPA's national voluntary transportation programs, such as the voluntary Diesel Retrofit program, Anti-Idling Initiatives, Best Workplaces for Commuters and SmartWay Transport. EPA, working in partnership with MA DEP and the City of Boston, will launch the pilot by hosting a workshop for Boston area businesses this winter.
- Work with Massport to develop a strategy for reducing diesel emissions at Conley Terminal through

such strategies as emulsified diesel fuel, ultra-low sulfur diesel fuel, diesel retrofits, and anti-idling outreach and enforcement

- Continue to work with DEP and other partners to encourage employers to provide outstanding commuter benefits. Through a variety of publicity events, EPA will recognize the leadership of employers that encourage their employees to commute to work in ways that help reduce pollution and traffic congestion. EPA will add the name of these employers to the New England list of the Best Workplaces for Commuters employers.
- Manage existing grants of about \$100,000 and new \$30,000 grant to the New England Asthma Regional Coordinating Council (ARC), which has a twelve-point action plan to reduce asthma rates in New England, including the key strategy of diesel retrofit pilot projects for school buses and targeting of anti-idling efforts in communities with high risk of asthma

Permitting and Toxics

- Implement the PSD program, in close coordination with Massachusetts DEP
- Review and provide comments on major non-attainment NSR permits, Title 5 operating permits, and permits to restrict emissions
- Review and take regulatory action on changes submitted on Massachusetts plan approval requirements at 310 CMR 7.02
- Notify Massachusetts facilities subject to commercial, industrial, solid waste incinerator (CISWI) regulations, and small municipal waste combustor (MWC) regulations
- Work with NESCAUM on presentation of a workshop for states on revisions to the federal NSR program
- Work with NESCAUM's Air Quality and Public Health Committee to make presentations and provide guidance for the states on air toxics regulations, community air toxics projects, air toxics risk guidance, and the results of the 1999 National Air Toxics Assessment (NATA) due to the public in 2004
- Continue to send DEP weekly/monthly updates of new new source performance standards (NSPS) and maximum available control technology (MACT) standards and host monthly air toxics conference calls
- On a semi-annual basis, send to DEP its options on accepting delegation of NSPS and MACT standards and, upon receipt of response, delegate accordingly
- Provide DEP with technical assistance, guidance and oversight for dispersion modeling for NSR/PSD sources
- Provide DEP with assistance on MACT, NSR or NSPS applicability determinations
- Oversee \$60,000 grant and provide assistance to the Lawrence/Merrimack Valley air toxics project
- Oversee \$50,000 grant and provide assistance to the North Shore HealthLink air toxics project

1.2 Indoor Air Quality

- Oversee grant and provide assistance to the Healthy Public Housing asthma outreach project in City of Boston
- Oversee grant and provide assistance to the MassCOSH Healthy Schools Initiative
- Continue to promote Tools for Schools toolkit materials to Massachusetts schools, both through MassCOSH and other opportunities
- Oversee State Implementation Radon Grant and provide assistance to the Massachusetts Department of Public Health in radon risk reduction activities

1.3 Atmospheric Changes/Climate Change and Energy

- Oversee \$65,000 grant to New England Governors Conference to assist in administration of Climate Change Action Plan
- Oversee grant, assist in organization of, and provide speakers for Climate Change Adaptation Conference in March 2004
- Oversee \$25,000 grant to Institute for Sustainable Energy for assistance in training state officials on use

- of EPA's building benchmarking tool for energy performance
- Assist Massachusetts communities (including Lowell, Medford, Boston, Cambridge, Somerville) on the benchmarking of energy performance of school and municipal buildings
- Promote Energy Challenge to Performance Track facilities in Massachusetts (involves seeking commitments to reduce greenhouse gas emissions)
- Develop web-based best practices guide for reduction of greenhouse gases on campuses of colleges and universities
- Provide \$30,000 grant to Massachusetts Climate Network of municipalities to promote greenhouse gas reductions
- Assist Massachusetts Health and Education Facilities Authority (HEFA) in implementation of green energy contract option

1.4 Radiation

- Provide technical support on radiation related projects in Massachusetts including nuclear power plant decommissioning

1.5 Science and Research

- Work with EPA's Office of Research and Development to conduct scientific research applicable to the air quality challenges in Massachusetts

Monitoring and Quality Assurance Activities

- Operate the Lowell carbon monoxide (CO) monitor (until EPA's coop student leaves in the spring of '04, when EPA will then have to revisit its ability to continue this support)
- Conduct quarterly audits of the BioWatch monitors
- Conduct annual performance audits of ozone and other pollutant monitors
- Conduct volatile organic compound (VOC) round robin for photochemical assessment monitoring stations (PAMS)
- Conduct monitoring site evaluations as needed
- Continue to perform instrument performance audits at NAMS, SLAMS, and PAMS monitoring sites.
- Review proposed changes to the air quality monitoring network and evaluate all new monitoring sites for proper siting criteria
- Review annual QAPP revisions

Goal 2: Clean and Safe Water

2.1 Protect Public Health, Drinking Water

Grants

- Manage special appropriation grants;
- Manage Clean Water Act (CWA) 104(g) wastewater training grants
- Negotiate and manage public water supply supervision and underground injection control grants, as embedded in the performance partnership grant
- Negotiate and manage water security grants to large drinking water utilities and the state drinking water program
- Provide financial assistance and technical support to the Nashua Watershed Source Water Protection Project

Program Oversight

- Conduct a Data Verification Audit and follow up on results
- Conduct program performance reviews including Drinking Water State Revolving Loan Fund; Capacity

- Development, and Operator Certification
- Track progress of state implementation of a variety of Safe Drinking Water Act (SDWA) regulations and programs (e.g. Source Water Assessment Program)
- Review enforcement data on system violations, and follow up as necessary
- Manage state data imported into Safe Drinking Water Information System (SDWIS), and provided by Underground Injection Control (UIC) program
- Work with the state to provide information to EPA Headquarters on strategic program measures and milestones

Primacy

- Review draft and final primacy packages
- As necessary, negotiate primacy extension agreements
- Work with state on direct implementation of certain SDWA regulatory enforcement
- Develop and issue federal register and public notices in preparation for final primacy approvals

Project Reviews

- Review Sole Source Aquifer and National Environmental Policy Act projects (NEPA)
- Develop and distribute a Transportation Guidance for project reviews

Training

- Provide training to water utilities and state employees on regulations and Safe Drinking Water Act programs
- Provide training and support for use of personal digital assistants (pda's) for sanitary surveys

Technical Assistance

- Provide technical assistance and information on a variety of SDWA and other public health matters
- Work with partners to provide assistance regarding lead in drinking water in schools
- Provide national and regional guidance and policies on a variety of Safe Drinking Water Act (SDWA) matters
- Develop tools to further the goals of the Small Systems Initiative (e.g. Sampling Handbook for Small System Operators)

Outreach

- Support and work with partners to further goals of the Private Well Initiative
- Continue Business for Safe Water and Environmental Educators Recognition Programs

Geographic Targeting

- Work with EPA regional programs to use Source Water Protection Areas as a targeting tool for program implementation and enforcement

Security

- Develop and distribute educational materials for security awareness
- Develop and distribute guidances and policies on a variety of security-related matters
- Work with partners to train state employees and water utility operators on vulnerability assessment tools and emergency response plans
- Provide security alerts and notices
- Work with partners to further the goals of the Law Enforcement Initiative

Drinking Water State Revolving Fund

- Provide financial and administrative support to Massachusetts municipalities for large capital projects.

Specifically with this program EPA is providing approximately \$ 29 million annually to be used in drinking water projects

Laboratory Coordination for Drinking Water

- Work with the laboratories of the Massachusetts Water Resources Authority and the Massachusetts Department of Environmental Protection to develop an Emergency Analytical Plan based on a mutually recognized need for a multi-laboratory Emergency Sampling Plan involving state and federal laboratories. This multi-laboratory effort is in the very early stages but the target is to have useable draft plans by early 2004.

2.2 Protect Water Quality

Total Maximum Daily Loads (TMDLs)

- Support MA DEP's TMDL Program, including the following activities
 - Approve TMDLs submitted by DEP following public comment period
 - Review draft TMDLs prior to public comment period
 - Track TMDLs in national data base
 - Serve as lead in the technical development of TMDLs for the lower Charles River
 - Provide financial support for targeted TMDLs including those developed in the Massachusetts Estuary Project (MEP) and for the Assabet River
 - develop pilots for innovative approaches to TMDL's with MA DEP, NEIWPPC, and EPA Headquarters

National Pollutant Discharge Elimination System (NPDES) Permits

- Issue NPDES permits in Massachusetts and provide assistance to joint permitting efforts including the following
- Initiate approximately 100 NPDES permitting actions in MA during FY04, including individual permits, and facilities covered by general permits
- Evaluate long term control plans needed to address combined sewer overflows (CSOs) provide financial support for innovative permitting in the Assabet watershed
- Provide financial support for nutrient trading work as part of the Massachusetts Estuary Program (MEP)
- Issue final Brayton Point permit in FY04 and serving as lead during appeal process
- Conduct regular joint sessions with DEP to review progress in stormwater
- phase II and power plant NPDES permits
- Provide approximately \$2.9 million in CWA §106 funds in FY 04 that can be used by DEP for permitting

Water Quality Standards (WQS)

- Review and comment on draft WQS and approve or disapprove final surface WQS
- Support implementation of standards
- Provide comments on the applicability of standards to selected programs and projects in Massachusetts
- Review and comment on nutrient criteria development plans

Integrated 303(d) / 305(b) List

- Review and approve or disapprove 303(d) list submitted to EPA by MA DEP
- Review and comment on draft lists and methodologies
- Review and comment on Draft Watershed Water Quality Assessments that form the feedstock for the 305(b) list and certain revisions to the 303(d) list

Comprehensive Monitoring and Assessment Strategy

- Review and comment on Draft Monitoring Strategy
- Approve Final Monitoring Strategy

Water Quality Data Bases

- Provide guidance and assistance for the use of STORET, Assessment Database System (ADB) and GRTS data bases
- Provide EPA and national contractor assistance to assist with STORET and ADB implementation, conditional upon the state committing by Dec. 31, 2003, to implement STORET
- Provide continual EPA technical support for STORET
- Set up New England States/EPA STORET Users Group

Water Quality Monitoring

- Conduct targeted field work in Massachusetts and support state data collection efforts including the following efforts
- Conduct intensive monitoring in the lower Charles River
- Conduct bacteria source tracking monitoring at selected Boston area coastal beaches
- Conduct selected monitoring as requested by the State in year 2 watersheds.
- Provide analytical and technical monitoring support to volunteer monitoring groups
- Review and approve quality assurance project plans (QAPPs) for federally funding projects in Massachusetts that involve collecting or using data.

Wetlands and Dredging

- Conduct federal wetlands reviews under §404 of the CWA and support certain state wetland protection and restoration efforts
- Work with Army Corps of Engineering (COE) and other federal agencies to review all wetlands and dredging projects subject to section §404 of the CWA
- Participate in Coastal America and the Massachusetts Wetlands Restoration Partnership
- Fund (through CWA §320 grants) and providing technical expertise to evaluate wetland restoration project and opportunities
- Participate in Massachusetts triage team to assess potential dam removal projects
- Work with COE in the development of Environmental Impact Statements for dredging projects in Massachusetts under NEPA.

Watersheds, Beaches and Other Special Places

- Provide financial and technical support for targeted projects including the following
- Provide financial, administrative and technical support to National Watershed Initiative Projects in the Charles River Watershed and the Narragansett Bay Watershed
- Evaluate Massachusetts and all New England projects nominated by the Governor for the FY04 National Watershed Initiative
- Provide technical and financial assistance (to MA DPH) to assist with monitoring beaches and preventing pollution that causes beach closures
- Oversee salt marsh restoration efforts in Rumney Marsh in Suagus and Revere
- Provide financial and technical support to the Buzzards Bay Project and Coalition for Buzzards Bay's citizen monitoring program.
- Provide financial, technical and logistical support to the Massachusetts Bays Project

Non-point Source Pollution

- Provide financial, administrative and technical assistance to MADEP
- Provide approximately \$ 3.1 million in 319 grant funds to DEP in FY'04
- Participate in MADEP's competitive non-point source (NPS) grant program

- Provide guidance and assistance on conducting a NPS program that is tailored to Massachusetts' needs and consistent with the National NPS program.

Clean Water State Revolving Fund

- Provide financial and administrative support to Massachusetts municipalities for large capital projects. Specifically, with this program EPA is providing approximately \$ 45 million annually to be used in clean water projects.

Goal 3: Preserve and Restore the Land

3.1 Preparedness and Response

Oil Spills, State Emergency Planning and LEPC Work

- Fund and conduct two, three-day "Fastwater Booming Oil Spill Response Courses" in MA in May, 2004. MA DEP response personnel will be invited to attend the courses free of charge

3.2 Reduce Solid Wastes and Promote Recycling

- Implement targeted reduction/efficiency strategies on: Electronics waste, Food Waste, Green Buildings, including EPA Facilities
- Implement targeted sector strategies on: Health Care/Hospitals, Schools, Colleges and Universities
- Provide grant to MA DEP focused on Recycling Food Waste
- Provide grant to MA WasteCap focused on Marine Shrinkwrap
- Provide assistance to MA DEP for Food Waste Summit
- Support electronic recycling coordination through Northeast Recycling Council (NERC)

3.3 Cleanup

Ensure Hazardous Wastes are Managed Safely (RCRA C)

- Work with the State on their RCRA permit/post-closure activities, State authorization, and program reporting procedures
- Work with MA DEP during FY2004 to establish a new Permit Renewal baseline that will be used to measure success through FY 2008
- Work with MA DEP on RCRA State authorization and proposed regulation
- Work with MA DEP to ensure that timely and accurate program information is maintained in the National RCRA database, RCRAInfo. During FY 2004 we will provide support to the State with their 2003 Biennial Report data collection.

RCRA Corrective Action

- Work with MA DEP in meeting the Environmental Indicators (EI) at the remaining Government Performance Results Act (GPRA) sites and in developing a schedule for achieving Corrective Measures Implementation (CMI) at all sites subject to RCRA Corrective Action
- Work with MA DEP in making (CMI)/final remedy decisions at sites subject to RCRA Corrective Action. (This will most likely be the next GPRA goal) including assistance in obtaining documents at sites subject to RCRA Corrective Action from License Site Professionals.
- Work with MA DEP in selecting the next GPRA baseline of sites for the 2006-2008 period and in updating the RCRA database for Corrective Action activities
- Conduct RCRA corrective action at several EPA lead sites in order to meet the EI's (Zeneca, Englehard, Clean Harbors Braintree, Columbia Mfg.) and issuing a consent order to the Zeneca facility. MA DEP must issue a Grant of Environmental Restriction at the Zeneca facility in Dighton prior to EPA issuing its consent order for corrective action at the site.

Superfund Pre-remedial

Work with MA DEP through Superfund Pre-Remedial Cooperative Agreement (V98116401) that also includes Brownfield Site Assessment activities (the BSA portion of this cooperative agreement is a continuation of the activities funded under Superfund - prior to the new Brownfields authorization)

- Assist MA DEP in reviewing Eligible Response Site List and providing feedback on EPA's proposed sites to be excluded from the enforcement bar provision in the new Brownfields legislation

Superfund Remedial NPL

- Provide MA DEP funding under a Superfund Block Funding Cooperative Agreement (V99174203) which includes supporting National Priority List (NPL) activities for 24 NPL sites and core activities for eligible non-site specific work. The state is currently funded at \$2,360,000 over the next three years. In general, this grant covers MA DEP personnel time and some state contractual work in support of EPA NPL program.
- Provide financial assistance through the Superfund Single Site Cooperative Agreement that has been awarded to MA DEP for the **Charles George** site in Tyngsborough
- Work with the state on a range of site clean up related activities including: review, comment, and concurrence on all major documents, participation in public meetings, state contractor oversight, identification of state ARARs, and timely communication of issues and concerns. Work with MA DEP to submit (Under the Superfund Regulation, 40 CFR Part 35 Subpart O), Quarterly Progress Reports, Financial Status Reports, MBE/WBE Reports, and Property Inventory Reports, if applicable.
- Conduct activities leading to cleanup at the following NPL Sites that have been targeted by EPA for FY'04 specific accomplishments. (These will require MA DEP review and concurrence.)
 - Remedial Investigation/Feasibility Study Workplan: **Sutton Brook Disposal Area** in Tewksbury.
 - Record of Decision (ROD): **Iron Horse Park** in Billerica, and **Shpack Landfill** in Norton/Attleboro.
 - ROD Amendment: **Silresim** in Lowell.
 - Explanation of Significant Difference: **Norwood PCB** in Norwood
 - Five Year Review: **Silresim**, **Nyanza** in Ashland, **Rose Disposal Pit** in Lanesboro, **Wells G&H** in Woburn, **Hocomoco Pond** in Westborough, **W. R. Grace** in Acton, and **Baird and McGuire** in Holbrook.
 - Superfund Reuse Assessment: **Hocomoco Pond**, **WR Gace**, **Cannons Engineering** in Plymouth, and **Norwood PCBs**.
- Conduct activities in partnership with DEP leading to clean-up at NPL sites including:
 - **Nuclear Metals, Inc. (NMI)** The roof of the facility building is leaking and will eventually collapse, and if negotiations between MA DEP and Army fail to succeed, the removal of the stored drums will eventually cause an EPA time-critical removal when the roof fails. Other concerns are that Starmet will not agree to vacate the facility until the drums are removed, and the RI/FS investigation of the buildings and the contamination beneath the buildings cannot occur until the drums are removed, causing potential delays in the RI/FS process.
 - **Baird and McGuire Superfund site** in Holbrook. EPA is currently upgrading the treatment plant (including full automation) which is scheduled to be completed in May 2004. EPA and MA DEP have been routinely meeting to discuss work progress. On April 1, 2004, MA DEP is scheduled to take over the operation and maintenance (O&M).
 - **Shpack Landfill Superfund site.** EPA plans to issue a ROD for the Shpack site during 2004. EPA will need to work with the MA DEP to evaluate the need to address off site migration of contaminants from the Attleboro Landfill.

- The **General Electric (GE)** Consent Decree created a "management architecture" which includes periodic meetings of the Regional Administrator, MA DEP Commissioner, Mayor of Pittsfield, Director of the Pittsfield Economic Development Authority and GE's VP in charge of Corporate Environmental Affairs. These meetings occur about 3 times per year. EPA will work with DEP on another part of the consent decree where dozens of environmental restrictions are required to be placed on properties. MA DEP must be involved in the negotiation process in order to ensure that the final restrictions are acceptable to MA DEP who will be the grantor of the restrictions.

Federal Facilities

- **South Weymouth Naval Air Station** - EPA will work with the state to secure the Governor's concurrence on the Covenant Deferral Request (CDR) package. The CDR, with all of its companion documents needs to go out for public comment before the end of 2003 to support a spring 2004 transfer date. There are concurrent activities under the MA MEPA certificate on the development side, including the smart growth effort that EPA is supporting.
- **Massachusetts Military Reservation - Superfund and Impact Area:** We are continuing with remedy selections and design/construction on the Superfund ground water plumes. One of the main issues on the Impact Area is the perchlorate level to be used to guide the investigation and cleanup. We support MA DEP efforts at promulgating a perchlorate standard. EPA needs continued active MA DEP participation on the work across the base.
- **Records of Decision** - South Weymouth Naval Air Station (2) in South Weymouth; Fort Devens in Devens, and Hanscom Air Force Base in Bedford.

Re-Use

See Superfund Remedial NPL and Federal Facilities for Site Specific reuse assessment targets.

3.4 Enhance Science and Research

Continue clean-ups at Massachusetts Superfund NPL sites using innovative technologies:

- Atlas Tack (Phytoremediation)
- Groveland Wells (UV Oxidation/SVE)
- Hanscom AFB (Bioremediation/Oxidation)
- Nyanza (UV Oxidation)
- Massachusetts Military Reservation (Recirculation Wells)
- ReSolve (Thermal Desorption/Phytoremediation)
- Silresim (SVE/Six Phase Heating)
- Sullivan's Ledge (UV Oxidation)
- Wells G&H (UV Chemical Oxidation)

Goal 4: Healthy Communities and Ecosystems

4.1 Chemical, Organism, and Pesticide Risks

Toxic Substances

- Maintain PCB program (permits, remediation, enforcement) and coordinate on PCB cleanups
- Implement Regional Mercury Action Plan
- Implement Regional Dioxin Strategy
- Implement Integrated Toxics Management Strategy
- Conduct training module on chemical right to know (RTK) with emphasis on persistent bioaccumulative toxics (PBT's)
- Continue to implement pollution prevention program

Pesticides and Agriculture

- Support state pesticides planning, worker protection, enforcement
- Continue education and outreach, promote Integrated Pest Management (IPM)
- Serve as non-voting member of MA IPM Council
- Continue West Nile Virus communication plan as necessary
- Develop/implement enforcement and worker protection strategy
- Continue participation on State Technical Committee
- Conduct Strategic Agriculture Initiative
- Implement agricultural dialogue with Massachusetts and USDA

Risk from storage of hazardous chemicals

- Provide Toxics Use Reduction (TRI) assistance
- Provide assistance to State Emergency Response Committee (SERCs) and Local Emergency Planning Committees (LEPCs)
- Provide homeland security assistance
- Provide chemical purchasing and management assistance
- Provide financial assistance through MA OSD grant re: state-wide chemical purchasing and management

4.2 Community Health

Urban Environmental Program

- Implement Massachusetts Urban Workplan
- Complete Chelsea Comparative Risk Assessment
- Provide education/outreach and coalition building efforts, leveraging external resources
- Establish baseline data trends and track correlations between environmental conditions and public health
- Conduct Springfield and Holyoke community mapping
- Conduct Multi-media inspections in Worcester
- Conducting possible environmental justice work in Worcester in 04

Lead

- Support MA Toxic Substances Control Act (TSCA) Lead (Pb) program
- Conduct lead (Pb) poisoning prevention activities: education/outreach/partnerships
- Provide \$72,141 to Lawrence for Healthy Kids project
- Conduct Keep it Clean Campaign to inform “do-it-yourself” home renovators, and contractors
- Conduct Springfield MA Health Awareness Project - pilot of multi-agency health awareness
- Participate in Boston Lead Action Collaborative
- Participate on New England Lead Coordinating Committee

Healthier and Safer Schools

- Conduct Tools for Schools, including EPA award to Westborough for Tools for Schools

- Conduct Chemical Management Outreach
- Promote IPM in schools
- Conduct AHERA asbestos program
- Conduct Integrated schools strategy
- Conduct 2nd year of EMS Pilot effort with MA DEP and Lee and Lenox schools
- Participate in Healthy Schools Council and Subcommittees
- Conduct Incentives Analysis Project (focused in MA and ME)
- Oversee Healthy Community Grant with Newton Public Schools

Asthma

- Provide education and outreach
- Support New England Asthma Coordinating Council
- Develop/encourage adoption of asthma prevention and diagnostic/treatment protocols

Livable Communities and Smart Growth

- Issue New Healthy Communities grants in MA - finishing up existing projects
- Continue transit and transportation projects - Commuters Choice program
- Increase scrutiny of projects reviewed under NEPA and MEPA and CWA 404
- Participate on MA DEM Low Impact Development workgroup
- Plan for smart growth at South Weymouth Naval Air Station
- Participate in New England Smart Growth Leadership Forum

Brownfields

- Provide new grants to: Brockton, Fitchburg Redevelopment Authority, Gardner, Main South Community Development Corporation in Worcester, Merrimack Valley Planning Commission, Mystic Valley Redevelopment Commission, New Bedford, Somerville, Springfield, Taunton
- Provide MADEP with \$1,368,049 in funding from the Brownfields Program through a Brownfields State Response Program Cooperative Agreement issued under the new Brownfields law, (CERCLA, Section 128(a)). Using this funding, MA DEP will:
 - Develop a timely survey and inventory of Brownfields sites in Massachusetts.
 - Enhance the state's oversight and enforcement capabilities by implementing the eGovernment Project, implementing procedures to prioritize auditing and enforcement; reviewing LSP performance records, reviewing site audits, implement plans to address the "Non-responders".
 - Develop program guidance to address the following issues: asbestos in soil, monitored natural attenuation, risk assessment short forms for residential exposure and lead contamination.
 - Conduct two Targeted Brownfields Assessments and assist Brownfields Cleanup Grant recipients with oversight of remediation activities.

4.3 Ecosystems

Wetland/Ecosystem Protection

- Map and prioritize high-quality wetland and uplands for protection and mitigation as it relates to large transportation projects
- Review approx 250 wetland permits per year
- Review CWA 404 wetland permits and enforcement activities
- Participate on NEIWGCC Wetlands workgroup, training and technical assistance
- Work to improve wetland monitoring
- Provide technical assistance on wetland restoration projects with MA CZM

- Provide technical assistance on dam removal with the River Restore Program
- Partner with other Coastal America agencies

4.4 Homeland Security

Prevention of Preparedness for, and Response to Accidental and Intentional Releases

- Work closely with MA DEP on plans for deployment of air monitoring and other hazardous materials response resources for the Democratic National Convention scheduled for the end of July, 2004
- Continue to work with MA DEP on Homeland Security and emergency response readiness issues through routine, day-to-day coordination and the existing Regional Response Team mechanism

4.5 Enhance Science and Research

Improve measurement and get quality data

- Improve ecosystem measures
- Conduct GIS mapping of unfragmented lands
- Conduct ReVA project
- Conduct New England Wadeable Stream (NEWS) and Lakes/ponds study
- Conduct QA program (QMP's, NELAC accreditation, QAPPs)

Section III - Crosswalk of Agency Base Program Environmental Objectives and Targets

| Massachusetts FY04 Program Plan Massachusetts DEP/US EPA 04-05 PPA | EPA New England FY 2003-08 Strategic Regional Framework of Goals and Objective |
|---|---|
| Goal 1: Clean Air | Goal 1: Clean Air |
| <p>1.1a - Reduce the emissions of ozone precursors and PM 2.5 and manage emissions of other Criteria Pollutants in MA (CO, NO₂, SO₂, PM₁₀, Pb)</p> <ul style="list-style-type: none"> maintain compliance with the CO, NO₂, SO₂, PM₁₀ standards attain the Ozone 8-hr standard by 2010 and with the 1-hr standard by 2007 attain the PM 2.5 standards by 2010 <p>1.1b - Reduce the transport of ozone and ozone precursors into MA from out-of state sources</p> <ul style="list-style-type: none"> Work to ensure EPA's national air program adequately addresses transport issues | <p>1.1 - Maintain and Improve Outdoor Air Quality</p> <ul style="list-style-type: none"> Ozone - by 2010, outdoor 8-hour ozone will be at healthy levels for 71% of people living in poor air quality areas in 2002 Particulate Matter – by 2010, outdoor fine particles will be at healthy levels for 100% of people living in poor air quality areas in 2002 Other Criteria Pollutants – Thru 2008, healthy levels will be maintained for all of NE for CO, SO₂, NO₂ and lead |
| <p>1.1c - Decrease the emissions of toxic air pollutants (Dioxin, Mercury, VOCS, HAPS)</p> <ul style="list-style-type: none"> Continue to reduce air toxics emissions asbestos demolition/renovation compliance rate target to be determined at some future year through the Beyond ERP Initiative** <p>**Beyond ERP is a multi-year effort to group facilities, set target compliance rates for each group, assess performance and then make necessary adjustments to the regulatory approach. In FFY '04 DEP Bureau of Waste Prevention will be establishing the groups, developing a multi-year schedule for running the groups through the Beyond ERP process, and establishing compliance targets and schedule for assessments on a small number of groups.</p> <p>1.1d - Minimize atmospheric deposition of acids*</p> <ul style="list-style-type: none"> Reverse damage to lakes and ponds Increase level of sustainable forestry <p>1.1e - Minimize atmospheric deposition of mercury in MA by reducing emissions and releases*</p> <ul style="list-style-type: none"> Achieve at least 85% reduction in mercury emissions from power plants 75% reduction in mercury emissions/releases by 2010 Eventual elimination of anthropogenic mercury use, emissions/releases <p>* Work will also address EPA Objectives 2.1 Protect Human Health, 2.2 Protect Water Quality, 3.2 Prevention and Conservation, and 4.2 Community Health.</p> | <ul style="list-style-type: none"> Air Toxics – Thru 2010, reduce ambient concentrations and exposure to air toxics |
| <p>1.1f - Continue to make progress on regional haze issues</p> <ul style="list-style-type: none"> Source-specific controls in place by 2013 to reduce MA contribution to haze in Class I areas. Achieve the regional haze standard by 2064 Submit the interim 10-year SIP and demonstration of required emissions reductions by the due date to be determined by the EPA | |
| Indoor Air is addressed as a separate goal in the EPA Strategic | 1.2 - Indoor Air |

Section III - Crosswalk of Agency Base Program Environmental Objectives and Targets

| Massachusetts FY04 Program Plan Massachusetts DEP/US EPA 04-05 PPA | EPA New England FY 2003-08 Strategic Regional Framework of Goals and Objective |
|--|---|
| <p>Plan. In Massachusetts, Indoor Air is addressed primarily by the MA Department of Public Health.</p> <p>Indoor Air is not addressed as a separate goal in the DEP 2004-05 Program Plan/PPA. DEP addresses indoor air quality as an extension of overall air quality.</p> | <ul style="list-style-type: none"> Indoor Air Quality – by 2008, 20% of schools will have improved air via Tools for Schools, asthma education and radon program – by 2008, 10K homes will have gone through radon program <p style="text-align: center;">The major target of this objective is pediatric asthma</p> |
| <p>1.3 - Minimize Green House Gas Emissions Goals of the New England Governors Conference are:</p> <ul style="list-style-type: none"> By 2010: GHG emissions = 1990 emissions By 2020: GHG emissions = 90% of 1990 Eventually reduce regional GHG emissions sufficiently to eliminate any dangerous threat to the climate (75-85%) below 2001 levels | <p>1.3 - Atmospheric Changes</p> <ul style="list-style-type: none"> Climate Change – by 2010, reduce NE greenhouse gas production to 1990 levels Stratospheric Ozone |
| <p>Radiation is addressed as a separate goal in the EPA Strategic Plan. Radiation is not addressed by DEP in Massachusetts and therefore is not included in the DEP2004-05 Program Plan/PPA.</p> | <p>1.4 – Radiation</p> <ul style="list-style-type: none"> TBD – Although there is no Regional Objective, there is a Regional Strategy – Support decommissioning nuclear power plants, Emergency Response, and drinking water and radon programs |
| <p>1.5 - Maintain the ambient air monitoring network Operate and maintain air monitoring network in compliance with 40CFR, Part 58 with a data capture rate of 75% for all contaminants</p> | <p>1.5 - Science/Research</p> <ul style="list-style-type: none"> Science to Support Air Program – research and long-term monitoring, Air Pollution Research |

| Goal 2: Clean and Safe Water | Goal 2: Clean and Safe Water |
|---|--|
| <p>DEP subdivides the Water Goal in three:</p> <p>2.1 Drinking Water/Protect Human Health and Safety</p> <p>2.2 Surface and Ground Water/Assure Clean Water and Healthy Ecosystems</p> <p>2.3 Intact and Functioning Wetlands</p> <p>DEP does not separate “human health” impacts from “environmental” impacts because:</p> <ul style="list-style-type: none"> Although there are links between water quality and human health, there are no good human health indicators for water quality at this time. Separating health and environment could create a false sense of separation between human health and environmental quality. | |
| <p>2.1- Drinking Water/Protect Human Health and Safety</p> <p>2.1a - Water that is safe to drink</p> <ul style="list-style-type: none"> Set standards for safe drinking water at PWS Know if delivered water is meeting standards Assure compliance with drinking water standards Support private water supply safety Protect existing sources Identify and protect future sources of drinking water <p>2.1b - Sufficient water for public health and safety</p> <ul style="list-style-type: none"> Promote wise use of water supply we have Maintain adequate pressure for fire fighting Assure capacity to respond to emergencies | <p>2.1 - Protect Human Health</p> <ul style="list-style-type: none"> Safe Water to Drink <ul style="list-style-type: none"> Delivery of Safe Drinking Water - % of systems meeting health based standards, security and emergency planning Protection of Drinking Water Sources from Contamination – source water assessment, source water protection |

Section III - Crosswalk of Agency Base Program Environmental Objectives and Targets

| Massachusetts FY04 Program Plan Massachusetts DEP/US EPA 04-05 PPA | EPA New England FY 2003-08 Strategic Regional Framework of Goals and Objective |
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| <p>“Fish Safe to Eat and Water Safe for Swimming” are addressed as a separate goal in the EPA Strategic Plan. “Fish safe to eat...” is not addressed separately in the DEP 2004-05 Program Plan/PPA. DEP’s plan does not break “fish safe to eat and water safe for swimming” into a separate objective for reasons noted above.</p> <p>DEP work toward this objective is found in Goal 1.1 Minimize Atmospheric Deposition of Acids and Minimize Atmospheric Deposition of Mercury, and in Goal 2.2 Surface and Ground Water/Assure Clean Water and Healthy Ecosystems</p> | <ul style="list-style-type: none"> • Fish Safe to Eat and Water Safe for Swimming <ul style="list-style-type: none"> ○ Restore and Protect Water Quality to Support, Fishing, Shell Fishing and Swimming Uses ○ TMDL and estuary work, ○ Regional Beach Strategy, ○ Mercury modeling for source reduction planning |
| <p>2.2 - Surface and Ground Water/Assure Clean Water and Healthy Ecosystems</p> <p>2.2a - Protect Water Quality/Assure clean water</p> <ul style="list-style-type: none"> • Set water quality standards • Know condition of surface and ground waters • Prevent water quality degradation • Control pollution from point sources • Control pollution from nonpoint sources • Restore degraded water quality <p>2.2b - Sufficient water for healthy ecosystems*</p> <ul style="list-style-type: none"> • Set flow standards • Know flow condition of surface waters • Know reasons for flow impairments • Control water withdrawals • Prevent water flow degradation • Restore water bodies with impaired flow <p>* Work also addresses EPA Objective 4.3 Ecosystems</p> <p>2.2c - Minimize the discharge of contaminated industrial wastewater to sewers, surface waters and groundwater</p> <ul style="list-style-type: none"> • Target compliance rates to be determined in some future year through the Beyond ERP Initiative** <p>**See Beyond ERP Initiative description under Goal 1.1c - Decrease the emissions of toxic air pollutants</p> | <p>2.2 - Protect Water Quality</p> <ul style="list-style-type: none"> • Restore and Protect Water Quality on a Watershed Basis – Clean Charles 2005 • Protect and Enhance the Physical, Chemical and Biological Components of Estuarine and Marine Ecosystems – reduce NPDES minor backlog, promote NPDES delegation, TMDL pilots thru NEIWPCC <p>Environmental improvement targets for this objective are to be developed based on national targets.</p> |
| <p>2.3 - Intact and Functioning Wetlands*</p> <p>Know extent of wetlands loss</p> <ul style="list-style-type: none"> • Identify causes of wetlands loss • Prevent losses by addressing most significant causes • Control losses through efficient and effective permitting • Work toward protection of wetland functions <p>DEP’s 2004-05 Program Plan/PPA, vigorous action to protect wetlands is key to water quantity and quality goals and needs to be at front and center. Dividing wetlands into several categories disguises the problems, which need to be highlighted instead. Therefore, DEP includes “Wetlands” as a separate</p> | <p>Freshwater wetlands are not specifically addressed in the EPA Strategic Framework. Goal 4.3 – Ecosystems says that Freshwater Ecosystems are captured in the Water Goal and that “significant wetland program resources are being utilized to address and minimize wetland impacts associated with large transportation projects”, and that EPA is working with NE states to develop and improve wetland monitoring, with goal of integrating it into state water quality monitoring programs</p> |

Section III - Crosswalk of Agency Base Program Environmental Objectives and Targets

| Massachusetts FY04 Program Plan Massachusetts DEP/US EPA 04-05 PPA | EPA New England FY 2003-08 Strategic Regional Framework of Goals and Objective |
|---|---|
| objective in the Program Plan/PPA. * Work also addresses EPA Objective 4.3 Ecosystems | |
| | 2.3 - Science and Research <ul style="list-style-type: none"> • Sound Science to Support Decision Making - New England Wadeable Streams Project, microbial tracking for Beach Initiative, implement STORET |
| Goal 3: Preserve and Restore the Land | Goal 3: Preserve and Restore the Land |
| 3.1 - Maximize Risk Reduction at Waste Sites Work to ensure PRP's achieve a compliance rate of at least 75% for Immediate Response Action (IRA) requirements. <ul style="list-style-type: none"> • Ensure implementation of Mandatory Risk Reduction Measures • Oversee and perform Emergency Response Activities • Address serious risks using public funds with state contractors • Triage sites for IRA, risk reduction and enforcement • Provide Direct Oversight of response actions at the most complex sites | 3.1 - Preparedness and Response <ul style="list-style-type: none"> • Preparedness – simultaneous large-scale emergencies, Homeland Security • Response – Hazardous substance releases, oil release response • Prevention – Oil facility compliance |
| 3.2a - Reduce Solid Waste and Promote Recycling By the year 2010 achieve 70% waste reduction (which includes both source reduction and recycling), including: <ul style="list-style-type: none"> • 60% municipal solid waste (MSW) waste reduction, • 88% construction and demolition (C&D) waste reduction 3.2b - Prevent contamination of land and water by ensuring that Solid Waste Management Facilities are properly designed, constructed, operated and maintained, and closed* <ul style="list-style-type: none"> • Target compliance rates to be determined in some future year through the Beyond ERP Initiative** 3.2c - Prevent contamination of land and water by ensuring that hazardous wastes are managed safely * <ul style="list-style-type: none"> • Target compliance rates to be determined in some future year through the Beyond ERP Initiative** * Work will also address EPA Objectives 2.1 Protect Human Health, 2.2 Protect Water Quality and 4.3 Ecosystems **See Beyond ERP Initiative description under Goal 1.1c - Decrease the emissions of toxic air pollutants | 3.2 - Prevention and Conservation <ul style="list-style-type: none"> • Reduce Solid Waste and Promote Recycling EPA baseline conditions and environmental targets are to be determined. The work corresponds to MA DEP work done as part of the Solid Waste Master Plan. |
| 3.3a - Oversee clean ups at RCRA Corrective Action Sites <ul style="list-style-type: none"> • Target compliance rates to be determined in some future year through the Beyond ERP Initiative** 3.3b - Increase the rate of cleanup actions at waste sites <ul style="list-style-type: none"> • Enforce against parties not performing cleanups • Streamline and maintain compliance tracking systems • Encourage deadline compliance by collecting annual | 3.3 – Cleanup <ul style="list-style-type: none"> • Control Site Risks – RCRA, CERCLIS site • Make Land Available for Reuse – Superfund site reuse assessments, Superfund, RCRA & LUST sites made available for next |

Section III - Crosswalk of Agency Base Program Environmental Objectives and Targets

| Massachusetts FY04 Program Plan Massachusetts DEP/US EPA 04-05 PPA | EPA New England FY 2003-08 Strategic Regional Framework of Goals and Objective |
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| <p>compliance fees</p> <p>3.3c - Ensure the quality of cleanup at waste sites</p> <ul style="list-style-type: none"> • Maintain compliance checks/inspections for privatized cleanups • Enforce against noncompliance with MCP standards • Ensure that policies and regulations promote Program goals • Provide direct oversight for Federal sites including sites under: <ul style="list-style-type: none"> ○ National Priorities List ○ Pre-Remedial/Multi-Site Cooperative Agreement ○ Brownfields Cooperative Agreement ○ Leaking Underground Storage Tank (LUST) <p><small>**See Beyond ERP Initiative description under Goal 1.1c - Decrease the emissions of toxic air pollutants</small></p> | |
|---|--|

| Goal 4: Healthy Communities and Ecosystems | Goal 4: Healthy Communities and Ecosystems |
|---|---|
| <p>4.1 - Decrease the use and release of toxic substances (TURA)</p> <ul style="list-style-type: none"> • Continue to reduce toxics use and releases, target to be determined in some future year through the Beyond ERP Initiative** • Reduce the quantity of toxic byproducts generated per unit of production <p><small>**See Beyond ERP Initiative description under Goal 1.1c - Decrease the emissions of toxic air pollutants</small></p> <p>4.2a - Decrease the toxicity and amount of all waste streams through pollution prevention and recycling</p> <ul style="list-style-type: none"> • Substantially reduce the use and toxicity of hazardous consumer products • Provide convenient hazardous product collection services to all residents and very small quantity hazardous waste generators by 2010 • Continue to foster the use of the best hazardous waste management techniques <p>4.2b - Facilitate the Restoration & Redevelopment of Brownfield Properties</p> <ul style="list-style-type: none"> • Identify Brownfields projects for program assistance • Implement Brownfields Cooperative Agreement | <p>4.1 - Chemical, Organism and Pesticide risks</p> <ul style="list-style-type: none"> • Reduce Human Exposure to Toxic Substances – includes pesticides, PBT's, lead, asbestos, right-to-know and pollution prevention <p>4.2 - Community Health</p> <ul style="list-style-type: none"> • Urban and Sensitive Populations – programs targeted at urban children, i.e. lead, asthma and vacant lot redevelopment • Smart Growth – S Weymouth Air Station redevelopment, transportation planning • Facilitate the Restoration and Redevelopment of Brownfields Properties –brownfields redevelopment and promotion |
| <p>For DEP work planned for 2004-05 that will meet the address aims of the Freshwater Ecosystems, Wetland Ecosystem and Estuarine and Marine Ecosystems objectives, see:</p> <p>1.1 Minimize Atmospheric Deposition of Acids and Minimize Atmospheric Deposition of Mercury</p> | <p>4.3 - Ecosystems</p> <ul style="list-style-type: none"> • Freshwater Ecosystems – captured in Water Goal • Wetland Ecosystems – relies on implementation of state programs • Estuarine and Marine Ecosystems – captured in Water |

Section III - Crosswalk of Agency Base Program Environmental Objectives and Targets

| Massachusetts FY04 Program Plan Massachusetts DEP/US EPA 04-05 PPA | EPA New England FY 2003-08 Strategic Regional Framework of Goals and Objective |
|--|--|
| <p>2.2 Sufficient Water for Healthy Ecosystems</p> <p>2.3 Intact Functioning Wetlands,</p> <p>3.1 Maximize Risk Reduction at Waste Sites</p> <p>3.2 Prevent Contamination of Land and Water by Ensuring that Solid Waste Management Facilities and Hazardous Wastes are Properly Managed,</p> <p>4.1 Decrease the Use and Release of Toxic Substances (TURA)</p> <p>4.2 Decrease the Toxicity and Amount of All Waste Streams through Pollution Prevention and Recycling</p> | <p>Goal</p> <ul style="list-style-type: none"> • Terrestrial Ecosystems – refers back to Smart Growth |
| <p>4.4a – Bio Monitoring in conjunction with Homeland Security</p> <ul style="list-style-type: none"> • Successful operation of monitoring network and data capture <p>4.4b - Assist in Enhancing Homeland Security</p> <ul style="list-style-type: none"> • Participate in planning, preparedness and response with other State and Federal Agencies | <p>4.4 - Homeland Security</p> <p>Enhance the Region’s Capability to Prevent, Detect, Protect, and Recover from Acts of Terror</p> |
| | <p>4.5 - Enhance Science and Research</p> <p>Sound Science – refers back to Water Goal, GIS mapping of unfragmented land, and New England Wadeable Streams Project</p> |
| <p>Compliance & Environmental Stewardship</p> <p>DEP’s commitment to directing compliance and enforcement efforts toward high risk areas is in alignment with the approach to compliance and enforcement outlined in the EPA Strategic Framework.</p> <p>Section VIII: Compliance and Enforcement Strategy includes a crosswalk of MA DEP and EPA Region I objectives and targets.</p> | <p>Goal 5: Compliance and Environmental Stewardship</p> <p>See Section VIII: Compliance and Enforcement Strategy.</p> |

Section IV - Environmental Justice

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including any racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal and commercial operations or the execution of federal, state, local and tribal programs and policy.

In October 2002, the Executive Office of Environmental Affairs adopted an Environmental Justice Policy that, in part, charged the Department with making environmental justice (EJ) a priority in planning and implementing its programs. The policy designated certain census blocks as EJ Population area based on the demographic character of the residents.¹ Although the delineation of an EJ Population area is relatively new, the Department's activities in low income and minority communities are long standing.

There are some general considerations that are important in evaluating the Department's performance in EJ communities. First, residents that live in EJ areas are often affected by environmental issues that impact a broader community or entire municipality, such as the quality of the drinking water or the performance of the waste water treatment system that discharges into the community's watershed. In other instances, facilities located outside the EJ area, such as major air sources or surface water dischargers, can have substantial impacts on neighboring communities depending on the direction the wind blows or water flows.

Examples of the Department's ongoing EJ related activities include:

- Clean Air regulatory actions that raised facility performance standards at power plants and municipal waste combustors,
- State Revolving Fund (SRF) grants that have funded major capital improvement to municipal water and waste water facilities,
- Solid Waste Municipal Recycling Incentive Program (MRIP) grants that have underwritten solid waste recycling/composting initiatives,
- 21E direct funding of the cleanup of contaminated sites in EJ areas,
- Initiating Licensed Site Professional (LSP) Program reforms that accelerate the privately funded cleanup of hazardous waste sites,
- Program initiatives to reduce the use of mercury including; fever thermometer collection program, dental amalgam collection program, and an ongoing initiative to test mercury levels in freshwater fish and provide data to DPH for issuing Fish Consumption Advisories. This is a particular EJ issue because certain minority communities in Massachusetts depend of freshwater fish to supplement their diet.
- Central Artery mitigation measures and SRF Program initiatives to retrofit construction equipment and buses to reduce diesel emissions,
- Pollution prevention, recycling and compliance assistance programs for small and large business and public schools, and
- Environmental Results Program initiatives for printers, photoprocessors and dry cleaners to permit cleaner business operations that promote economic development.

¹ Census blocks where 25 percent or more of the residents are minorities, foreign born, or lacking English proficiency, or whose median annual household income is at or below 65% of the statewide median income.

Section V - Strategic Investments and Innovation

DEP and EPA New England recognize the need to make resource investments to develop new strategies and new ways of working to meet emerging challenges and to improve our ability to protect the environment. This includes sustaining and improving critical existing core program work as well as making investments in new strategies to address emerging challenges.

To fulfill this need, DEP and EPA will continue to promote innovation by providing the work environment, the institutional infrastructure and the resource commitments necessary to sustain innovative work and capacity building. DEP and EPA will proactively support the following key practices to create and sustain an innovative work environment:

- Encouraging staff and managers at all levels of our agencies to adopt a dynamic problem solving approach that embraces non-conventional approaches for achieving environmental results;
- Fostering experimentation by expressly acknowledging that making mistakes is part of the experimentation and learning process;
- Communicating to agency staff and external stakeholders the opportunities and challenges of the agencies' innovation projects;
- Allowing sufficient time for innovations to evolve and to be appropriately evaluated;
- Placing innovative programs and projects on an equal footing with established traditional core programs; and
- Ensuring that the measures for the success of an innovation is equivalent to, and not substantially higher than, the measures for existing programs.

DEP and EPA are committed to fully integrating innovation and capacity building projects into the planning, resource allocation and evaluation processes of each agency. With respect to the planning process, the Agencies agree to take specific actions to foster innovation, including:

- Actively seek potential innovation projects and identify them as part of the ordinary program planning and PPA planning activities of DEP and EPA;
- Hold periodic meetings with staff to promote "bottoms up" innovation and capacity building ideas;
- Incorporating planned innovation and capacity building projects into the agencies' annual plans, the PPA and related implementation plans; and
- Expressly granting relief on agreed upon outputs.

In an organizational environment where funds are often not available to allow significant new resource investments for capacity building or innovation work, it will be necessary to consider temporary disinvestments from existing work to proceed with these efforts.

Once DEP and EPA have agreed upon capacity building or other innovative work, they will consider and come to agreement on:

- *The level of resources necessary to conduct and evaluate the work;*
- *Any specific disinvestments that will be required to accomplish this new work;*
- *Any cross-program reassignments that may be needed to support and complete a project; and*
- *The roles and responsibilities of each agency to support identified projects.*

As with any significant investment of limited agency resources, DEP and EPA are committed to measuring, evaluating and learning from all innovation and capacity building projects. To accomplish this, the agencies agree to the following:

- Each identified Innovation or capacity building project will include a measurement and evaluation component;
- Projects will include higher level environmental outcome measures whenever possible, but also may employ activity counts and other performance measures as appropriate;

- The agencies may support projects that do not have easily attainable short-term measures, but may require longer-term measures or the development of new measurement approaches; and
- At the conclusion of each project, an evaluation will be performed to record the lessons learned and to make recommendations for next steps to continue or expand the innovation, apply it to other areas of agency work or discontinue the project.

Section VI - Reporting Requirements

EPA, nationally and on a regional basis, is engaged in efforts with states to identify and address opportunities to reduce reporting burdens. DEP is interested in pursuing all efforts that will reduce the resources needed to complete reports and focus resources on more meaningful collection and use of environmental and programmatic information.

During the negotiation of the 2004-05 Performance Partnership Agreement, DEP and EPA worked to develop a comprehensive list of reporting requirements under the PPA and related documents and agreements. It has not been possible to construct an exhaustive list of all reporting requirements included in the PPA and the underlying and related agreements, laws and regulations. The following are high-priority reporting requirements that are particularly important to DEP's mission and are of particular value to the regulated communities.

Reporting of program data required by federal programs will continue under this agreement as DEP and EPA continue discussions about state reporting requirements to national databases. Of particular interest to DEP and many states is the need to vigorously scrutinize existing state reporting requirements to the national databases. DEP and other states feel that many of the detailed programmatic reporting requirements are meaningless and should be deleted or amended to make them meaningful to EPA, the states, and the public.

DEP continues to work with severely constrained resources and with significantly reduced staffing levels (25% over the past 2 years). Therefore, in the event that DEP must prioritize in meeting reporting requirements, the following high-priority reports are where resources will be dedicated.

Goal 1: Clean Air

Priority Clean Air Reporting Requirements

Annual Reports on Implementation of the Automobile Inspection and Maintenance I/M Program: The Massachusetts I/M state implementation plan requires that the state submit annual reports on its program.

2002 Update to the National Emission Inventory: DEP will submit an inventory of ozone and particulate matter precursors by June 1, 2004. Because the 2002 emission inventories will serve as the baselines for progress in attaining the new eight-hour ozone and fine particulate matter standards, these inventories are particularly important.

Submission of Ambient Monitoring Results to the AIRS Database: Given the important role of ozone and fine particulate matter monitoring in the designation of attainment and non-attainment areas, DEP will continue to input monitoring data to the AIRS database. DEP is currently submitting this data on a regular basis.

Massachusetts Nitrogen Oxides (NOx) Budget Program: For each summertime ozone season, DEP will allocate NOx allowances among subject sources (i.e., power plants) and report them to EPA's Clean Air Markets Division by the April 1st three years before the ozone season. Given the importance to air quality of this program, it's critical to meet this requirement, and DEP has been doing so to date. Starting in 2006 and every three years thereafter, DEP is also required to conduct an audit of the implementation of the NOx Allowance Trading Program.

Clean Air Reporting Requirements Outside the PPA Process

To provide a context concerning the relationship between federal requirements and the Performance Partnership Agreement (PPA), the following are some examples of federal requirements outside the PPA. These requirements are outside the PPA either because they are outside the scope of the PPA (for example, Clean Water Act State Revolving Fund) or have not been restated in the PPA because they are required in an existing formal source (law, regulation, delegation agreement, etc.) and have not become part of the PPA strategic discussion. These examples provide a good sense of the source and types of requirement outside the PPA, but are by no means an attempt to provide a comprehensive listing of all requirements.

Clean Air Act Provisions

Example: Section 182 (c) provides the timeline for many SIP submissions requirements due in the 1990's. Partly because DEP has wanted the PPA to only reflect the most significant expectations, the PPA has not always contained every one of these submissions (e.g., requirement to submit ozone precursor inventory every three years). DEP air staff is aware of these requirements.

EPA's SIP Actions in the Federal Register

Example: EPA sometimes attaches conditions on its approval of SIP submissions. These conditions may require DEP to take some action.

National Data Base

Example: DEP submits monitoring and compliance information into the AIRS and AFS systems.

Other Grants

Example: Grants to DEP for PM_{2.5} monitoring are not included in the PPA and do involve a number of commitments by DEP to report information.

Delegation Agreements

Example: Massachusetts has assumed delegation of numerous MACT, NESHAP or NSPS emission standards. Under the delegation agreement, EPA regularly sends DEP lists of new standards with a request that DEP indicate the standards for which they wish to accept delegation.

National Regulations

Example: The I/M regulations require that each state submit annual reports on its program.

National Guidance Documents

Example: The request for submissions of ozone and PM designations were issued in guidance document by EPA, and sent to the Governors with letters explaining the importance of the request.

Goal 2: Clean and Safe Water

Priority Drinking Water Reporting Requirements

Monthly Reports on the status and frequency of inspections and certification determinations for in-state microbiological laboratories: MA DEP and EPA R1 have negotiated an aggressive laboratory inspection schedule to ensure that an adequate laboratory inspection and certification schedule is maintained.

2004 Data Verification Report: EPA Region I will be conducting a data verification audit via state drinking water file reviews to determine potential discrepancies in complying system inventories, and identifying monitoring and drinking water standards violations.

Submission of Violation Results to the SDWIS Database: Timely and accurate information on drinking water system violations is significant indicator of public health protection and performance of drinking water programs. DEP will continue to import such information into SDWIS on a timely basis.

Annual Reports on Capacity Development and Operator Certification Programs: These programs are important to the overall health of the drinking water program. Their particular emphasis is on the need to support small systems, the vast majority of systems in Massachusetts.

Quarterly Reports on State Water Security Activities: MA DEP will use grant monies to support state and local coordinator relating to water security and emergency response planning. Close tracking of these efforts will continue to be an important item.

Drinking Water Reporting Requirement Outside the PPA Process

To provide a context concerning the relationship between federal requirements and the Performance Partnership Agreement (PPA), the following are some examples of federal requirements outside the PPA. These requirements are outside the PPA either because they are outside the scope of the PPA (for example, Clean Water Act State Revolving Fund) or have not been restated in the PPA because they are required in an existing formal source (law, regulation, delegation agreement, etc.) and have not become part of the PPA strategic discussion. These examples provide a good sense of the source and types of requirement outside the PPA, but are by no means an attempt to provide a comprehensive listing of all requirements.

Safe Drinking Water Act Provisions

Example: Section 1413 of the SDWA (a) provides general timelines by when States must adopt promulgated federal drinking water regulations, and submit appropriate and adequate documentation (e.g., primacy applications). Specific deadlines depend upon the dates on which the respective regulations have been promulgated. Other specific program implementing reporting requirements are embedded within the SDWA, such as notification of systems' variance & exemptions, and the Biennial Wellhead Program Status Report.

National Data Bases

Example: MA DEP imports drinking water system violations into SDWIS on a regular basis. Underground Injection Control (UIC) program submits quarterly reports and an annual report to EPA R1 on program activities and measures of success for input into the national database.

Other Grants

Example: As of 10/30/03, MA DEP has received \$300K dollars in water security funds. Quarterly reports on such grant work progress is required.

Extension Agreements

Example: Extension Agreements between EPA R1 and MA DEP outline specific extended primacy deadlines, and implementation and reporting requirements appropriate for each rule. Such reporting is particularly important for EPA R1 in cases where the Region has interim primacy enforcement authority.

State Revolving Load Program Requirements

Under the Drinking Water State Revolving Load Fund, the state submits a biannual program report, and annual financial audit, annual capacity development and operator certification implementation reports, list of systems in significant non-compliance (every three years) and electronic input into the NIMS system.

Regional Program Evaluations and IG Audits

Example: the Inspector General recently completed an audit of State Capacity Development Programs, including the Massachusetts program. Other IG audits or surveys may occur during the year. On a regional level, MA DEP is scheduled for a data verification audit in FY04.

National Regulations

Periodic updates on the implementation of certain regulations are required by federal regulations and by virtue of state primacy agreements. For example, in 2004, DEP will prepare an update on the status of Ground Water Under the Direct Influence of Surface Water Determinations for non-community systems.

National Guidance and Program Measures

DEP will provide data for of EPA Region 1's report out on the national annual program objectives and measures. Commitments between EPA R1 and EPA OW are reflected in a Memorandum of Agreement.

Microbiological Laboratory Inspections and Certification Determinations

MA DEP is required to inspect and certify in-state microbiological laboratories on a three-year cycle.

There is currently a backlog in certification and an aggressive schedule has been put in place to address this laboratory certification backlog. Monthly updates are sent by MA DEP to EPA.

Priority Surface Water Reporting Requirements

Water Quality Standard Revisions: The Clean Water Act ss303(c) requires the state to hold public hearings at least every three years to review and revise its Water Quality Standards and to submit these new or revised standards to EPA.

List of Impaired Water: The Clean Water Act ss 303(d) requires the state establish and periodically revise its priority ranking of waters which do not meet water quality standards. This is now done with the Integrated List which combines the ss 303(d) list with the ss 305(b) list.

TMDLs: The Clean Water Act 303(d) requires that state to establish TMDLs and submit them to EPA.

State Water Quality Reports: The Clean Water Act ss 305(b) requires states to prepare and submit to EPA a water quality assessment reports every 2 years. This integrated ss305(b)/ss303(d) Listing Report, which combines the ss 303(d) list with the ss 305(b) assessments is due by April 1, 2004 and every two years thereafter.

Non-Point Source (NPS) Annual Report: The Clean Water Act ss 319(b)(11) requires that state annually to report and revise as appropriate on its NPS program and plan.

State Water Monitoring and Assessment Program: To meet FY 2005 ss 106 grant requirements, the state must submit a Comprehensive Water Monitoring and Assessment Strategy by September 30, 2004. This Strategy must be complete and address the "Elements of a State Water Monitoring and Assessment Program: (final, dated 3/14/03).

Surface Water Reporting Requirements Outside the PPA Process

To provide a context concerning the relationship between federal requirements and the Performance Partnership Agreement (PPA), the following are some examples of federal requirements outside the PPA. These requirements are outside the PPA either because they are outside the scope of the PPA (for example, Clean Water Act State Revolving Fund) or have not been restated in the PPA because they are required in an existing formal source (law, regulation, delegation agreement, etc.) and have not become part of the PPA strategic discussion. These examples provide a good sense of the source and types of requirement outside the PPA, but are by no means an attempt to provide a comprehensive listing of all requirements.

Other Grants

Clean Water Act State Revolving fund – Annual financial audit, annual program report, annual minority business and women's business (MBE/WBE) report.

Goal 3: Preserve and Restore the Land and

Goal 4: Healthy Communities and Ecosystems

Underground Storage Tanks

Semi-Annual Activity Report: This semi-annual report covers confirmed releases from USTs, cleanups initiated, cleanups completed, emergency responses, and releases from upgraded USTs (compiled into separate report: see below)

Leaking Upgraded Tank Report: This semiannual report details the cause of releases from those USTs that have been "upgraded" according to 1998 requirements.

LUST Grant Dollar Drawdown: This quarterly (or more frequently if EPA requests it) report documents the amount of funding we have used from available LUST grant funds.

LUST Grant Closeout "Final FSR": This report, prepared every two years, details where the LUST grant dollars were spent, on such things as a staff oversight, contractor costs, site-specific cleanup, and tangible items such as pumps, blowers, etc.

Priority Site Remediation and Restoration Reporting Requirements

Superfund Remedial NPL

The following NPL Sites have been targeted by EPA for FY'04 specific accomplishments and will require MA DEP review and concurrence.

- Remedial Investigation/Feasibility Study Workplan: Sutton Brook Disposal Area in Tewksbury
- Record of Decision (ROD): Iron Horse Park in Billerica, and Shpack Landfill in Norton/Attleboro
- ROD Amendment: Silresim in Lowell
- Explanation of Significant Difference: Norwood PCB in Norwood
- Five Year Review: Silresim, Nyanza in Ashland, Rose Disposal Pit in Lanesboro, Wells G&H in Woburn, Hocomoco Pond in Westborough, WR Grace in Acton, and Baird and McGuire in Holbrook.
- Superfund Reuse Assessment: Hocomoco Pond, WR Grace, Cannons Engineering in Plymouth, and Norwood PCBs.

Superfund Remedial Federal Facilities NPL

- **Records of Decision** – South Weymouth Naval Air Station (2) in South Weymouth; Fort Devens in Devens, and Hanscom Air Force Base in Bedford.

RCRA Corrective Action

MA DEP must issue a Grant of Environmental Restriction at the **Zeneca** facility in Dighton prior to EPA issuing its consent order for corrective action at the site.

Site Remediation and Restoration Reporting Requirements Outside the PPA Process

Superfund Pre-remedial

MA DEP currently has Superfund Pre-Remedial Cooperative Agreement (V98116401) which also includes Brownfield site Assessment activities (the BSA portion of this cooperative agreement is a continuation of the activities funded under Superfund – prior to the new Brownfields authorization).

MA DEP will review eligible Response Site List and provide feedback on EPA's proposed sites to be excluded from the enforcement bar provision in the new Brownfields legislation.

Brownfields

Superfund Block Grant: This report includes National Priority List (NPL) Support Agency activities for 24 NPL sites and core activities for eligible non-site specific work.

Typical activities performed by the state include reviewing and commenting on all major documents, and concurring on records of decision, participating in public meetings and site management meetings, overseeing state contractors, identifying state ARARs, and performing timely communication of issues and concerns. Under the Superfund Regulation, 40 CFR Part 35 Subpart O, MA DEP is required to submit the following under this CA: Quarterly Progress Reports, Financial Status Reports, MBE/WBE Reports, and Property Inventory Reports, if applicable.

Multi-Site Cooperative Agreement/Brownfields Site Assessment: This quarterly report relates to evaluating sites on CERCLIS (EPA's database of sites potentially eligible for NPL listing), including EPA Preliminary Assessment and Site Inspection reports, reviewing No Further Action decisions and decisions to remove sites from the list, and recommending additions to CERCLIS and for NPL listing. We also report on selection of sites for Brownfields Site Assessments and their progress.

Brownfields Cooperative Agreement: This quarterly report includes activities listed in our approved grant related to establishing and/or enhancing the program elements contained in the new federal Brownfields legislation, and to developing/maintaining the required public record. We also report on site selection for new Brownfields Site Assessments.

Enforcement and Compliance Reporting Requirements

Regular Reporting of Inspection and Enforcement Information into National Program Data Systems: With the advent of much wider public access to compliance data through EPA's Enforcement and Compliance History Online (ECHO) website in 2002, timely and accurate entry of inspection and enforcement data and

quality assurance of the information is of significant importance. In addition, DEP and EPA's increasing focus on using the data in our systems to manage the programs requires that the data be current and of high quality.

Annual Compliance and Enforcement Performance Report: This important report summarizes DEP's compliance and enforcement performance for EPA and the public.

OES Information Needed from MA DEP

RCRA Compliance Program Required Reports /Information

- EOY Report per the PPA
- Data Entry and Maintenance of RCRAInfo for all RCRA Activities
- State specific priority write ups where substituted in lieu of core program activities distributed to the States (e.g., 20% generator coverage, etc.)

Water Compliance Program Required Reports/Information

- NPDES Minors Reporting – 40 CFR 123.45(c) requires that the Region submit to EPA Headquarters an annual reporting of the compliance status of NPDES minor permittees in Massachusetts. The report is to include the total number of minors reviewed, the number of noncomplying minors, the number of enforcement actions issued to minors, and the number of permit schedules extending compliance deadlines. The report is due annually on February 28th. EPA requests that MA DEP provide relevant information regarding MA DEP's enforcement against minors conducted during the preceding year so that it can be incorporated into the report.
- NPDES Inspection Reporting – Individual EPA 3560 Forms – Water Compliance Inspection Reports must be completed for each inspection that the MA DEP would like to have coded into EPA's Permits Compliance System database. Copies of these forms must be submitted to EPA.
- MA DEP Enforcement Actions – Copies of all informal and formal water administrative, judicial and penalty enforcement actions must be submitted to EPA. Similarly, EPA provides the MA DEP with copies of all EPA formal and informal enforcement actions.

Air Compliance Program Required Reports/Information

- EOY Report per the PPA
- Biennial Inspection Plan (Compliance Monitoring Strategy) – can be submitted with PPA
- Data Entry and Maintenance of AFS mandatory data elements
- High Priority Violator coordination and reporting to AFS

General Grant Reporting Requirements

Grantees shall submit annual performance reports within 90 days of the end of the grant year. The reports will address: accomplishments as measured against work plan commitments, cumulative effectiveness of the work performed under all work plan components, existing and potential problem areas, suggestions for improvement, including, where feasible, schedules for making the improvements. (40 CFR 31.40 and 40 CFR 35.115)

Section VII -Quality Assurance Management Program (QA/QC)

In order to ensure that all data generated under this agreement will be of known and documented quality suitable for use as environmental indicators and program outcomes and outputs, the Department and EPA Region I will maintain a Quality Assurance Management Program. The Quality Assurance Management Program is documented in the Department's Quality Management Plan (QMP) developed in 2001 in accordance with *EPA Requirements for Quality Management Plan (EPA QA/R-2)*. The QMP is designed to:

- Ensure that quality assurance project plans completed by DEP or DEP's grantees and contractors meet the *EPA Requirement for Quality Assurance Project Plans (EPA QA/R-5)* and are completed and approved prior to data collection activities;
- Coordinate quality assurance efforts among the bureaus, programs and offices at DEP;
- Oversee the planning, implementation and assessment of environmental quality assurance programs;
- Oversee the planning, generation, evaluation and reporting of data associated with quality indicators; and
- Schedule the review and updating of the QMP annually to identify and make any needed changes to the quality system and submit a revised QAPP list (Table 1 of the QMP) to EPA. The Department will provide annual updates, including any needed changes and a revised QAPP list on January 1 of each year.
- The MA DEP Quality Management Plan was approved by US EPA on October 2, 2001 for five years.

EPA New England's Quality Assurance Office will continue to work with DEP by providing guidance, training and technical support.

Section VIII - Compliance and Enforcement Strategy

Compliance/Enforcement have not been included as a discreet goal in the Department's previous PPA's. The Department has not developed C/E strategies and targets as a separate goal in the 2004-2005 PPA either. For the 2004-2005 PPA period, the Department has developed its Compliance and Enforcement Strategy as a separate section that supports the Department's work outlined in Sections II and III of this PPA. The Department will implement its Compliance and Enforcement Strategy consistent with the Enforcement and Compliance Assurance Goals and Expectations of the FY04 Guidance for Compliance Assistance and Innovative Program Strategies in New England Performance Partnership Agreements. Specific attention will be given to taking timely and appropriate enforcement to address significant non-compliers. An Annual Compliance and Enforcement Report will be submitted at year's end documenting implementation of the Department's compliance and enforcement strategy and the environmental outcomes that have resulted.

Targeting C/E Resources

In the EPA New England Draft 2003-2008 Strategic Framework, compliance and enforcement strategies become a means to give a higher profile and achieve greater results for selected objectives from other environmental goals. The EPA document lists specific programs (Title V, air toxics, MACT compliance, wet weather program, pesticides, and RCRA) as areas to be emphasized.

In a similar approach, the Department has incorporated compliance and enforcement within the work plans in the 2004-05 PPA/Program Plan as a tool to achieve environmental goals. The Department will emphasize its commitment to environmental protection and environmental justice by targeting its compliance and enforcement efforts toward high risk areas including:

- wetlands,
- waste-site clean-up in urban areas,
- major air, waste and industrial wastewater facilities.

Measures of C/E Success

During the period of the 2004-05 PPA/Program Plan, the Department will continue its efforts to develop specific outcome-oriented measures of success that link achieving an environmental goal, such as promoting healthy stream flow or increasing the rate of waste site cleanups, with an assessment of the extent and nature of a sector's non-compliance. As set out in more detail in the Annual C/E Strategy and in the Draft 2003 C/E Report, in many cases, specific improvement targets have been set for which data will be collected in 2004 and 2005. The results of the compliance data assessment will be used in determining which set of C/E strategies and tools will be most effective in achieving both the program's compliance target and the broader environmental goals.

Compliance and Enforcement Measures actively under development during 2004-05 include:

Goal 1: Clean Air C&E Measures of Success

Objective: Compliance with Ambient Air Quality Standards and Federal Acid Rain Standards

As a group, Air Operating Permit sources are the most significant stationary sources of the air contaminants of greatest concern for ozone, acid rain and particulate formation, as well as certain air toxics emissions. The air operating permits codify all of the existing emission limits and associated operating, monitoring, record keeping, and reporting requirements designed to ensure that they do not cause or contribute to violations of ambient air quality standards.

Primary Measure of Success:

- Air operating permit sources operating in compliance with permit requirements.

Goal 2: Clean and Safe Water C&E Measures of Success

Objective: Safe Drinking Water

Primary Measure of Success:

- Proportion of population served by systems in compliance with all *health-based* standards, not including reporting violations. Compliance goal for SFY04 is to maintain the rate of 96% of population served by systems in compliance with all health-based standards

Objective: Prevent Surface Water Degradation from “Point” Discharges to Groundwater

Primary Measure of Success:

- Improve compliance with groundwater permit discharge limits i.e.: reduce the rate of significant noncompliance (SNC) with effluent limits to less than 15% by 6/30/04

Objective: Healthy Stream Flow

The Water Management Act (WMA) uses permit and registrations to manage the amount of water withdrawn from a watershed basin by higher volume users in order to ensure that there is adequate stream flow to preserve the watershed’s ecology.

Primary Measure of Success:

- Percent of WMA registrants and/or permit holders in compliance with WMA authorized system-wide withdrawal volumes.
 - Raise cranberry bog compliance with WMA authorized system-wide withdrawal volumes.
 - Raise public water supply (PWS) compliance with WMA authorized system-wide withdrawal volumes by December 31, 2004.
 - Raise non-PWS/non-bog compliance with WMA authorized system-wide withdrawal volumes by December 31, 2004.

Target Compliance Rates: For each of these particular sectors, targets have been set using performance standards applicable to each sector, for instance, authorized system water withdrawal, unaccounted for water use, per capita use and percentage of facilities brought into WMA universe.

Goal 3: Preserve and Restore the Land C&E Measures of Success

Objective: Maximize Risk Reduction

A primary goal of the waste site cleanup program is to ensure that time-critical risks as sites are mitigated to the maximum extent feasible and as quickly as possible. To that end, the Massachusetts Contingency Plan (MCP) requires that Immediate Response Actions (IRAs) be taken in response to all 2-hour and 72-hour notification conditions.

Primary Measures of Success:

- Compliance rate for initiation of IRAs to address 2/72 hour releases
- Compliance rate for status report deadlines
- Current number of outstanding IRA deadline violations

Target Compliance Rates: to be determined during 2004-05

Objective: Increase the Rate of Cleanup

The MCP requires that all reported sites be cleaned up, and that a Response Action Outcome statement (RAO) be submitted to DEP, within five years of the completion of a preliminary site assessment. For most sites, the deadline for preliminary assessment or Tier classification is one year from release notification, thus the cleanup deadline is six years from notification. Many sites are cleaned up within the first year, prior to the preliminary assessment deadline. One of BWSC's main goals is to increase the overall rate of cleanup. To achieve that goal, BWSC uses enforcement and other incentives at all major deadlines, with particular emphasis on the preliminary assessment and RAO deadline.

Primary Measures of Success:

- Compliance rate for RAO deadline
- Percent of sites that achieve RAO within 1 year
- Average time to RAO (bell curve analysis)
- Current number outstanding RAO deadline violations

Target Compliance Rates: to be determined during 2004-05

Objective: Ensure the Quality of Cleanups

This goal is focused on ensuring that response actions performed under the supervision of Licensed Site Professionals are done in substantial compliance with the performance standards of the MCP. To pursue this objective, BWSC uses site audits, enforcement, training, technical assistance, and direct oversight of response actions in limited circumstances.

Primary Measure of Success:

- During FY04, BWSC will develop standardized, reproducible metrics to evaluate BWSC's success in ensuring the quality of cleanups.

Objective: Safe Landfill Disposal

Ensuring that landfill disposal is safely conducted will be assessed in terms of the percent of facilities in compliance with solid waste landfill core regulatory requirements.

Primary Measure of Success:

- Permitted Open Landfills that are established constructed in accordance with approved plans, and operated and maintained in accordance with permit and regulatory requirements.

Goal 4: Healthy Communities and Ecosystems C&E Measures of Success**Objective: Decrease Environmental Impact of Printing Operations**

The performance of the printer sector of the Environmental Results Program will assess printing operations' compliance with the hazardous waste management and industrial waste water rules and the adoption of pollution prevention technology, such as silver recovery, and practices that reduce the emissions of air and water pollutants and generation of hazardous waste.

Primary Measure of Success:

- Increasing compliance rate and pollution prevention practices in printing operations.

Strategic Compliance & Enforcement Initiatives

Traditionally, the Department's Compliance and Enforcement Program targeted a mix of facilities, sites, and protected resources based on priorities established through commitments to EPA, program specific initiatives and regulatory requirements, and responses to complaints. Going forward, the Department is committed to analyzing the way C/E priorities are set and C/E activities are targeted in order to refine the manner and intensity of C/E operations. The Department's aim is to match the desired environmental outcomes with the relative risk and compliance status of each sector. Unequivocally, Compliance and Enforcement will remain a high priority, but C/E activity outputs are likely to be reduced and further risk-based strategic choices on the allocation of resources will be required.

One part of the response to these challenges is to take full advantage of the efficiencies that information technology offers. The Department will use information technology to refine compliance strategies and hone enforcement tools to ensure that the environmental quality that results from its C/E performance is not diminished.

During the 2004-05 PPA period, the Department intends to launch a set of initiatives that exemplify the principles of information-based strategic targeting, meaningful measurement and streamlined implementation that will be the benchmarks of the Department's approach to compliance and enforcement.

Wetlands Enforcement Initiative

A computer assisted analysis of aerial photos of wetland resources taken over the last decade depicts extensive illegal alterations of wetlands that has occurred despite a substantial proportion of staff resources concentrated on the oversight and review of local conservation commissions' orders. While such permit-oriented compliance activities have an important role in protecting wetlands, that protection is limited to property owners that obtain valid orders and comply with them. As the reconnaissance demonstrated, it does not address the more pervasive illegal alterations conducted outside the system or the beyond approved limits established by the wetlands regulations or orders of conditions.

Using advanced technology combined with aerial and field surveillance, DEP intends to intensively redirect resources into a compliance strategy and enforcement response that:

- compels the remediation of past illegal alterations,
- collects the economic benefit obtained by illegal filling,
- communicates that non-compliance will be uncovered, and
- clarifies which elements of the local permitting process need to be strengthened to prevent further uncontrolled wetland loss.

Beyond ERP

The Environmental Results Program (ERP) laid the foundation of a novel regulatory approach that evaluates compliance based on a sector's unique performance indicators and then designs the compliance assistance and enforcement responses to fit the sector's particular operational characteristics and compliance deficiencies. Compliance assurance was based on self-certification, backed up by but not dependent upon field inspections, combined with biannual outcome-oriented performance measurements. BWP successfully applied this model to printers, photo processors and dry cleaners, and achieved substantial compliance gains from business that were too numerous and small to be amenable to the typical annual field inspection tactics.

Beyond ERP is designed to build on the ERP foundation and raise it to the next level by extending its principles to a broad array of facilities and enhancing its performance measurement methodology to incorporate compliance rate targets and root cause analysis. The information produced by this combination of advanced targeting and assessment will boost DEP's capability to devise streamlined compliance assurance solutions that address specific performance shortfalls, measure when non-compliance problems are resolved, which will allow us to strategically realign our C/E resources to focus on the most important and intransigent problems. Over the course of the year DEP will pilot Beyond ERP models in up to six business sectors. A key concept will be to use flexible compliance tools for facilities that certify and to target inspections and enforcement on facilities that neglect to certify their compliance.

Urban Area Compliance Assurance

The environmental quality of our urban areas, particularly those that are designated as environmental justice neighborhoods, is a critical concern to DEP for several important reasons. Residents of these communities are often subjected to multiple sources of pollution that have been demonstrated, as in the case of asthma, to contribute to elevated incidence or risk of adverse health effects. Older, deteriorated housing and abandoned industrial operations are also more likely to expose neighborhood residents to asbestos and other contaminants. Urban properties that are contaminated with oil and hazardous waste often languish because of the recalcitrance of property owners or responsible parties who cannot or will not assess and clean-up the contamination. Such properties present not only health and environmental concerns, but also impede the growth of commercial and residential development.

Mitigation of urban pollution and acceleration of site clean-ups directly complements the goal of sustainable development by removing environmental quality stressors and increasing the stock of developable urban land.

With the goal of reducing air contamination levels, increasing the rate and quality of site clean-ups and supporting the development of sustainable businesses and affordable housing, the Department will use facility and site information data and GIS mapping systems in concert with inter-agency brownfield development initiatives to implement an urban enforcement strategy that will target Tier 1B/D default sites, mobile and stationary air pollution sources, and asbestos removal and renovation projects.

Urban Non-Responder Enforcement Project

This project will provide publicly funded waste site clean-up in support of enforcement effort in urban areas. Efforts will be targeted to sites that:

- Are in noncompliance because they either failed to complete preliminary assessment and tier classification or failed to perform required actions
- Are located in an urban setting
- The potentially responsible parties (PRP) own the property (location of the site) and appear to have the financial resources to perform response actions
- The property value appears to exceed environmental liability
- Are near schools, water supply Zone II's or other sensitive receptors
- Pose a significant threat.

The enforcement actions will include several elements:

- Issue a Notice of Response Action (NORA) establishing a date for response or penalties

- If the PRP does not respond by compliance date of NORA or if PRP decides not to perform response actions, issue Notice of Intent to Mobilize (NOIM), establishing that DEP's contractor will be taking over, when the contractor will begin work and reiterating the PRP's liability, treble damages and the lien that will be in place on the property
- If PRP decides to continue response actions after DEP has issued NORA/NOIM, then DEP will pursue an ACOP that includes a strict schedule, settles any outstanding costs to DEP and establishes that the PRP has the financial resources to complete the job
- DEP Initiates Cost recovery/super lien provision.

Asbestos Enforcement Initiative

The Department's goal is to enhance and support enforcement of asbestos regulations and protection of public health through increased targeted inspections and publicizing results of inspection efforts and recent enforcement cases. Targeted inspections, resolution of selected ongoing enforcement cases, and compilation of recent enforcement actions have taken place between mid-January and the end of February 2004.

To facilitate our ability to target the most likely and significant violations and to develop the strongest deterrence message possible, the initiative will include several elements:

- Bundling of Recent Asbestos Enforcement Cases: Each region will review enforcement cases of the past six months and prepare summaries of significant cases that support the initiative.
- Development and Resolution of Ongoing Enforcement Cases: Each region will prepare summaries of ongoing asbestos enforcement cases, identifying cases of which enforcement actions can be completed by the spring of 2004. OEC will contact the Attorney General's Office to discuss the status of referred asbestos cases and determine what cases can be completed or referred back to DEP for potential inclusion in public information announcements.
- Targeted Inspections: DEP will increase asbestos inspections, targeting inspections based on the potential risk of exposure.
- Off-Hour Inspections: To increase our ability to discover violations, enforcement staff will perform inspections during weekends and evenings during the initiative.

DEP/EPA Compliance and Enforcement Base Program

Air: DEP will undertake to following categories of air inspections:

- 110 Air Compliance Evaluations (ACEs):
 - 50 Major Source ACEs
 - 60 Other Source ACEs
- 21 Stack Tests
- 80 Stage I/II Inspections.

Furthermore, EPA agrees to credit DEP at some level (to be negotiated) with the extent of certification compliance it achieves in the Stage II Vapor Recovery Program.

RCRA: DEP will continue the inspection program undertaken in FY03 – including meeting or exceeding EPAs 50% TSDF inspection goal. DEP will conduct between 200-250 RCRA inspections in FY04, including multi-media inspections at 20% of the LQG universe, provided that EPA agrees to credit DEP at some level (to be negotiated) with the extent of certification compliance it achieves in its Environmental Results Program. As part of its targeting strategy, DEP will continue to focus on illegal operators/permit evaders and facilities with significant non-compliance.

Water: During the 2003 water inspection year (July 2002 through June 2003), DEP inspected 65 of 133 NPDES major facilities. In addition, DEP conducted compliance inspections of 57 NPDES minor facilities. DEP will continue the inspection program undertaken in 2003 and will focus on reaching a higher percentage of NPDES major facilities. To ensure adequate inspection coverage, DEP has provided EPA's Water Technical Unit with a list of NPDES major facilities it plans to inspect between now and June 30, 2004, as well as those NPDES major facilities which DEP does not intend to inspect.

Compliance Assistance: During FY 2004, DEP and EPA will: support the innovative TMDL pilot projects, support and issue the regulations associated with the RCRA functional equivalency project, and disinvest in the ERP photoprocessing sector as new sectors are developed. EPA and DEP will negotiate specifics for the FY05 PPA.

| Massachusetts DEP 04-05 Compliance and Enforcement Strategy | US EPA Region I 2003-2008 Draft Strategic Plan Goal 5: Compliance & Environmental Stewardship |
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| <p>Objective - Ensure facilities remain in compliance with environmental protection requirements</p> <p>Baseline</p> <ul style="list-style-type: none"> • DEP regulates several thousands of facilities that generate, recycle, transport, treat, store or dispose of hazardous wastes, thousands of industrial sewer dischargers, approximately 163 surface water dischargers, 65 groundwater dischargers, several hundreds solid waste management facilities and several thousand stationary air sources • No definitive compliance rate data <p>Target</p> <ul style="list-style-type: none"> • Regulate facilities that generate, recycle, transport, treat, store or dispose of haz wastes; industrial sewer dischargers; approx. 120 surface water dischargers; 40 groundwater dischargers; solid waste management facilities; and stationary air sources <p>Indicator</p> <ul style="list-style-type: none"> • Target compliance rates to be determined <p>Objective - Ensure products and vehicles are in compliance the environmental protection requirements</p> <p>Baseline</p> <ul style="list-style-type: none"> • DEP regulates certain consumer products such as points and other coatings, vehicle emissions, fuel composition and other transportation planning and other sources of pollution that are not "facilities" • In 2003, DEP adopted regulations which limit VOCs for certain coatings sold to consumers. Massachusetts manufacturers were required to certify they would sell conforming product • No definitive compliance rate data (EPA rules supercede so EPA enforces) <p>Target</p> <ul style="list-style-type: none"> • Regulate paints and other coatings, vehicle emissions, fuel composition, other transportation planning and other sources of pollution that are not "facilities" | <p>5.1 - Improve Compliance</p> <ul style="list-style-type: none"> • Increase Compliance of the Regulated Community – by 2008, 3% increase all aspects of compliance programs (tech. Assistance requests, improved management practices, audits, compliance actions, enforcement actions, etc) |

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| <p>Indicator</p> <ul style="list-style-type: none"> Target compliance rates to be determined <p>Objective - Increase compliance with waste site cleanup deadlines and performance standards</p> <p>Baseline</p> <ul style="list-style-type: none"> DEP tracks and reports extensive information on site-specific risk reduction measures (for the data from 2001-2003, see DEP's <i>2003 PPA Final Progress Report</i>) <p>Target</p> <ul style="list-style-type: none"> Work to ensure that PRPs achieve a compliance rate of at least 75 percent for Immediate Response Action (IRA) submittal requirements, measured one year after discovery of the condition requiring the IRA. <p>Indicator</p> <ul style="list-style-type: none"> At this time, no environmental indicators have been developed for this goal; many states, EPA and organizations such as the Association of State and Territorial Waste Management Officials (ASTWMO) are working to develop appropriate indicators. <p>Objectives - Ensure Compliance with Water Goal</p> <p>Baseline</p> <ul style="list-style-type: none"> See Baseline data from the 2002 305(b)/303(d) Integrated List – Section III – pg 30 of this document <p>Target</p> <ul style="list-style-type: none"> Know if delivered drinking water is meeting standards (compliance with monitoring and reporting requirements) Assure compliance with drinking water standards Assure compliance with point source discharge permits to surface water (under control pollution from point sources) Assure compliance with point source discharge permits to ground water (under control pollution from point sources) Assure compliance with WMA permits (under control water withdrawals) Prevent unlawful alteration (under prevent losses of wetlands) | |
| <p>Objective - Promote Pollution Prevention as the preferred means of compliance with regulations</p> <p>Baseline</p> <ul style="list-style-type: none"> DEP incorporates pollution prevention concepts and where ever possible, incentives into all of its regulatory programs In 2003, at least 10% of higher level enforcement actions included explicit requirement for pollution prevention through source reduction, with documented reductions of at least 135 tons per year of air pollution and hazardous waste, 13,000 gallons per year of wastewater and 9 million | <p>5.2 Improve Environmental Performance through Pollution Prevention</p> <ul style="list-style-type: none"> Reduce Environmental Impacts through Superior Performance – continue “Performance Track” Improve Environmental Performance through Pollution Prevention and Innovation – pollution prevention by Gov’t Agencies Implement NEPA |

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| <p>gallons per year in water conservation</p> <p>Target</p> <ul style="list-style-type: none"> • Continue to incorporate P2 concepts in program design • Continue to increase the lbs. of pollution reduced in response to enforcement actions and the % of total reductions achieved through enforcement actions • Continue to increase the number of facilities that adopt P2 in response to an enforcement action and the % of facilities doing so <p>Objective - Promote Environmental Stewardship and Beyond Compliance</p> <p>Baseline</p> <ul style="list-style-type: none"> • In 2003, 11 facilities agreed to adopt an environmental management system as a response to DEP higher level enforcement. This is 8% of the facilities where DEP carried out higher level enforcement • In 2003, 5 facilities agreed to adopt a Supplemental Environmental Project as a response to DEP higher level enforcement. This is 4% of the facilities where DEP carried out higher level enforcement • In 2003, about 540 smaller lower level enforcement actions have various pollution prevention incentives, including information regarding OTA to reduce their waste <p>Target</p> <ul style="list-style-type: none"> • Continue to increase that number and % of facilities that adopt EMS in response to DEP enforcement actions • Continue to increase the number and % of facilities that adopt SEP's in response to DEP enforcement action and increase the value of those SEP's | |
| | <p>5.3 Build Tribal Capacity</p> <ul style="list-style-type: none"> • Tribal Environmental Quality |

Section IX - Grant Budget

| | Fiscal Year 2004 Federal Budget |
|---|--|
| Personnel | \$ 6,143,252 |
| Fringe Benefits (23%) | \$ 1,412,948 |
| Travel | \$ 69,074 |
| Equipment | \$ 25,765 |
| Supplies | \$ 117,947 |
| Contractual | \$ 4,320,232 |
| Construction | \$ 0 |
| Other | \$ 268,039 |
| Total Direct | \$12,357,257 |
| Indirect Charges (@32.76% of Federal Salary Base) (@20.64% of State Match Salaries) | \$ 3,603,643 |
| Total | \$15,960,900 |

Section X - Agreement

This agreement is effective as of October 1, 2003 and shall remain in effect until September 30, 2004, unless amended by mutual consent.

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| Robert W. Varney | Date |
| Regional Administrator | |
| US Environmental Protection Agency | |
| New England | |

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|-----------------------------|------|
| Robert W. Golledge, Jr. | Date |
| Commissioner | |
| Massachusetts Department of | |
| Environmental Protection | |